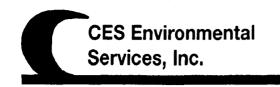
Williams Brothers constructifgga Proft 1992



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/8/2007

Dear Zac or Dave

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1992

Generator: Williams Brothers Construction

Address: HWY 59 South

Houston, TX

Waste Information

Name of Waste: Water base clear curing compound

TCEQ Waste Code #: CESQ2191

Container Type:

Detailed Description of Process Generating Waste:

Unused / out of date product

Color: milky

Odor: mild

pH: 8

Physical State:

Incompatibilities: na

Safety Related Data/Special Handling:

na

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc. FROM

(THU) JAN 4 2007 4:04/ST. 3:57/No. 6802463056 P 15



4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 39048
U.S. EPA ID No: TXD008980461 ISWR No: 30900



#1992

SECTION 1: Gene	rouser Transportion					
Company:	William Brothers					
Address:	59 & University		-,			
City, State, Zip:	Houston, TX		·			
Contact:	Marc Anderson	***************************************		Title:		
Phone No:	832-309-4235			Far No:		
24/hr Phone:		-				
U.S. EPA I.D. No:	TXLESAR	122		•		
State LD.	CESOS	72/		SIC Code:		
SECTION 2: Billion	g Information -	Same at Above				
Company:	CKG Services					
Address:	10707 Honea Egypt					
City, State, Zip:	Monigoinery, TX 7	7316				
Contact:	Traci Fisher	T	de:	Office Manager		
Phone No:	936-483-3662	F:	ı≭ No:	936-483-3674		
SECTION 3: Gene	rel Description of th	www.				
Name of Waste: W. Detailed Description Physical State:			VOut of E	late Product		
T WASHINGTON	□ Selid	☐ Filter Cake	ב	Combination		
Color: Milky	•	Odor: <u>Mild</u> /				
Specific Gravity (wa	iter=1): <u> </u>	Density & lbs/	p al			
Layera:	X Single-phase	Multi-	phase			
Container Type:	х Огот	Tota		Truck	П	Other (explain)
	55 Gai	- 10	اـــا		_	Other (orbinal)
Container Size:	33 Gai					
Frequency: Number of Units (co Texas State Waste Q	· —	Monthly Other:	× a	Quarterly		Yearly
		ESQ 219	<u> </u>			
Proper U.S. DOT St.	lipping Name; UN/N	A: N/A	rcra —	PG: NA	07 Re.	RQ: NA
Flash Point 210 F	pti 8	Reactive Sulfide		Q		Solidu 0%
Oll& Groupo	TOC	Zinc		Couper	1	did
Qmg/l	Omg/I	Qmy/l		Omg/l	<u> 0</u>	ng/I

FROM

SECTION 4: Physical and Chemical Data

SOMEOREMENT STATE	Content Colon	15.6
The waste consists of the following materials	Ranges are acceptable	or %
Mineral Spirits	5-10	%
Water Base Clear Curing Compound	85-100	1%
		┼
		

24	C110/4 2: 28	LECA MENTE	Data			
u d	he handling o	f this waste	regulars the use	of special	n rutective	eau

quipmest, picase explain. N/A

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval puckage. **MSDS**

SECTION 7: Incommelbilities

Please list all incompatibilities (if any); NA

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the bazardous waste characteristics, listed below,	WAS NOT PERFORMED based upon the following
generator knowledge:	•

TCLP Metals:	0		
TCLP Valutilan	<u>0</u>		
TCLP Semi-Volatiles:	Q		
Reactivity:	Q		
Correcivity:	Ω		
Ignitability:	0		
SECTION D. CAMPING	of a Carridication		

Approval Number:

The information contained berein is based on x generator know attached description is complete and accurate to the best of compassions of composition properties exist and that all known costed are representative of all materials described by this documents.	ny knowledge and ability to determine that no deliber or suspected hazards have been disclosed. I certify that	nte of willly
Authorized Signature:	Date: 16/07	•
Primed Name/Title: Zac4Fe boughoo		
CHS USE ONLY (DO NOT WASTE IN THUS SPACE)		
Compliance Officer: Labranthang	Additional Information:	

(THU) JAN 4 2007 4:05/ST. 3:57/No. 6802463056 P 17

FROM

1

2	ECTION 10: Waste Receipt Classification Under 40 CPR	437	
L	s this material a wastowator or wastowater studge? 🔲 YES	x NO	
i	('Yes', complete this section,		
P	LEASE CHECK THE APPROPRIATE BOX. IF NO APPRO	ROPRIATE CATEGORY, GO TO THE NEXT PAG	E.
Ma	als Subsiderary: Subpart A		
	Spent electroplating baths and/or studges Metal finishing rines water and studges Chromate wastes Air politation control blow down water and studges Spent anodizing solutions Inclacration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from ele Vibratory deburring wastewater	dectroplating of phosphating operations	
	Alkaline and acid solutions used to clean metal purts or equi	uipment	
<u>Oils</u>	Subsider one: Subpart R		
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Continuinated groundwater clean-up from petroleum source Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fiels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil unxures from parts cleaning operations Wastervater from oil bearing paint washes	es	
Orga	nics Subcutezory: Subpart C		
	Landfill leachate Contaminated groundwater clean-up from non-petrologies so Solvent-bearing wastes Off-apecification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes	Ources	
	Wastewater from adjectives and/or operation wastewater from organic chemical product operations Tank clean-out from organic non-petroleum sources		

FROM

FROM

(1) If the word contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.

(2) If the waste contains oil and grouse less than 100 mg/L, and has any of the pollutants listed below in concentrations in cases of the values fisted below, the waste should be classified in the metals subcategory.

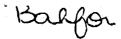
Cadmium: 0.2 mg/L Chronium: R.9 mg/L Copper: 4.9 mg/L Nickel; 37.5 mg/L

(3) If the waste contains oil and greate less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.

	McIals Subcategory
	Oils Subcategory
П	Organica Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Oreste, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



*** MATERIAL SAFETY DATA SHEET ***

Page 1

Date of preparation: 07/01/04

3011000-10H

SECTION I

Manufacturer Address

: W. R. MEADOWS, INC. : 300 industrial Drive

: Hampshire, lilinois 60140

Health

:11

: (847) 683-4500

Flammability Reactivity

Personal Protection

:11 :01 : 1

Telephone # Emergency #

: 1-800-424-9300 Chemtrec

(Hazard Rating: 0=Least,1=Slight,2=Moderate,3=High,4=Extreme,*=Chronic)

Product Class

: DIVISION 3, Catalog #360-R : 3011000-10H

Mfg. code I.D. Trade Name

SECTION II-A

1100 WATER-BASE CLEAR CURING COMPOUND

HAZARDOUS COMPONENTS

% by SARA

VAPOR PRESSURE

-HMIS

LEL,

No. Component

CAS#

.Weight

313 NO

(mm Hg @ 20 C)

(@ 25 C)

1. Mineral Spirite

84742-47-8 5-10

26

0.75

None of the components of this product are recognized as carcinogenic. N/A: Not Applicable

Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372, chemicals listed on the 313 List (40 CFR Part 373.65) are identified under the heading "SARA 313".

OCCUPATIONAL EXPOSURE LIMITS SECTION II-B

N/E

OSHA PELICELING 500PPM

PEL/STEL SKIN N/E

TI V/TWA **100PPM**

ACGIH TLV/CEILING TLV/STEL N/E

200PPM

SKIN N/E

100PPM N/E: Not established **SECTION III**

No. PEL/TWA

PHYSICAL DATA

Bailing Point Evaporation Rate Vapor Density

: 212 degrees F. : < 1 (ether = 1) : > 1 (air = 1)

: 8.80

% Volatile by volume % Volatile by weight Weight per gallon

: 65.00 (Theoretical) : 84,00 (Theoretical) : 6.33 (Theoretical)

pH Level SECTION IV

HEALTH INFORMATION

EYE CONTACT; Based on the presence of component 1 this product is presumed to be moderately initiating to the eyes. Product vapors and/or mists may also be imitating to the eyes.

SKIN CONTACT: Exposure may cause mild to moderate irritation. Prolonged or repeated contact may result in defatting and drying of the skin which may result in dermatitie. No irritation is likely after brief contact, but may occur after prolonged contact.

INHALATION: Exposure may irritate the nose, throat, respiratory tract, and other mucous membranes. Exposure to excessive vapor concentrations may cause signs of transient central nervous system depression. (e.g. headache, drowsiness, loss of coordination, and fatigue). Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage, intentional misuse by deliberately concentrating and inhaling the contents may be harmful of fatal.

INGESTION: Based on the presence of component 1 this product is presumed to be slightly toxic. Small amounts of the liquid aspirated into the lungs during ingestion or from vomiting may result in severe lung damage. While this material has a low degree of toxicity, ingestion of excessive quantities may cause signs of central nervous system depression. (e.g. headache, fatigue, drowsiness, dizziness, and loss of coordination).

SIGNS AND SYMPTOMS: Symptoms of eye irritation include pain, tearing, reddening, and swelling. Symptoms of skin irritation include reddening, swelling, rash, and redness. Symptoms of respiratory irritation include runny nose, sore throat, coughing, chest discomfort, shortness of breath, and reduced lung function. Symptoms of gastrointestinal irritation include sore throat, abdominal pain, nausea, vomiting, and diarrhea. Transient central nervous system depression may be evidenced by headache, dizziness, nausea, and symptoms of intoxication; in extreme cases, unconsciousness and death may occur. Symptoms of chronic overexposure include loss of memory, loss of intellectual ability, and loss of coordination.

AGGRAVATED MEDICAL CONDITIONS: Pre-existing skin, eye, and respiratory disorders may be aggravated by exposure to this product. OTHER HEALTH EFFECTS: None recognized.

SECTION V

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT; Immediately flush eyes with water for lifteen (15) minutes. If symptoms persist, seek medical attention.

SKIN CONTACT: Remove contaminated shoes and clothing. Wipe excess from skin and flush with water using soap if available. Seek medical attention if irritation occurs. Do not reuse clothing until thoroughly decontaminated.

INHALATION: Remove victim to fresh air and treat symptomatically. Provide oxygen if breathing is difficult. Give artificial respiration if the victim is not breathing. Seek prompt medical attention.

INGESTION: Do not induce vomiting. If vomiting spontaneously occurs, keep the victim's head below the hips to prevent aspiration into the lungs. Since aspiration into the lungs can cause very serious, permanent damage, the decision of whether to induce vomiting or not should be made by a physician. Danger from lung aspiration must be weighed against toxicity when considering emptying the etomach, Consult a physician, hospital, or poleon control center and/or transport to an emergency facility immediately.

Date of preparation: 07/01/04

1100 WATER-BASE CLEAR CURING COMPOUND

3011000-10H

Page 1

*** MATERIAL SAFETY DATA SHEET ***

Date of preparation: 07/01/04

Page 2 3011000-10H

SECTION VI

FIRE AND EXPLOSION HAZARDS

FLAMMABILITY CLASSIFICATION

- NFPA : Combustible Liquid - Class IIIA

- DOT: Not regulated

FLASH POINT: Greater than 210 degrees F. (Estimate)

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical, or Carbon Dioxide.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: Clear area of unprotected personnel. Do not enter confined fire space without helmet, face shield, bunker coat, gloves, rubber boots, and a positive pressure NIOSH approved self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure.

SECTION VII

REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS AND MATERIALS TO AVOID: Avoid oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may yield Carbon Dioxide, Carbon Monoxide, and/or incomplete combustion products. Do not breathe smoke or furnes. Wear appropriate protective equipment.

SECTION VIII

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION: Use ventilation as required to control vapor concentrations - at least 10 air changes per hour are recommended for good general room ventilation. If exposure exceeds the PEL/TLV, use the appropriate NIOSH approved respirator.

PROTECTIVE CLOTHING: Wear safety glasses, goggles, or a splash shield to prevent eye contact. Contact lenses should not be worn. Wear appropriate gloves and protective clothing to prevent contact with skin and clothing.

ADDITIONAL PROTECTIVE MEASURES; Eye wash fountains and safety showers should be available for use in an emergency.

SECTION IX

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES: LARGE SPILLS>> Evacuate the hazard area of unprotected personnel. Wear appropriate respirator and protective ciothing. Shut off source of leak only if safe to do so. Dike and contain. If vapor cloud forms, water fog may be used to suppress; contain run-off. Remove with vacuum trucks or pump to storage/salvage vessels. Sook up residue with an absorbent such as clay, sand or other suitable material; place in non-leaking containers for proper disposal. Flush area with water to remove trace residue; dispose of flush solutions as above. SMALL SPILLS>> Take up with an absorbent material and place in non-leaking containers; seal tightly for proper disposal.

WASTE DISPOSAL: Observe all Federal, State and local regulations regarding proper disposal.

SECTION X

ADDITIONAL PRECAUTIONS

Containers can contain hazardous product residues even when empty. Wash with soap and water before eating, drinking, smoking or using toilet facilities,

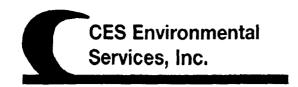
The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injury from the use of the product described herein.

Date of preparation: 07/01/04

1100 WATER-BASE CLEAR CURING COMPOUND

3011000-10H

Entenpoise Roducts (San Autor) Prof # 1993



Waste Pre-Acceptance/Approval Letter

Date 1/8/2007

Dear Scott Goulas

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1993

Generator: Enterprise Products Operation-Meter Station (San Antonio)

Address: 4.5 mile East of Sulphur Springs Road on Foster Rd

San Antonio, TX

Waste Information

Name of Waste: Pipeline drying swabs TCEO Waste Code #: CESQ4092

Container Type:

roll-off box

Detailed Description of Process Generating Waste:

Foam swabs are used to dry cleaned natural gas pipelines. Line cleaned with detergents a flushed, swabs are pushed behind to dry line for service.

Color: light brown to off-whit Odor: none pH: neutral

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

1993

CES Environmental Services, Inc.

4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948

U.S. EPA ID No: TXD008950461

ISWR No: 30900

SECTION 1: Gener	ator Information					
Company:	Enterprise Produc	ts Operating- Met	er Station (S	San Antonio		
Address:	4.5 miles East of S	Sulphur Springs R	oad on Fost	er Road		
City, State, Zip:	San Antonio, TX					
Contact:	Mike Zeringue (N	SPEC)		Title:	Manager	r
Phone No:	337-344-8384			Fax No:		
24/hr Phone:	CES-713-676-146	0		•		
U.S. EPA I.D. No: 7	X CESQG			•	1.	
State I.D.	CESQG			SIC Code:	NA	
SECTION 2: Billing	Information –	Same as Above				
Company:	Coastal Chemical Co		Pipeline Serv	vices		
Address:	P.O. Box 820					
City, State, Zip:	Abbeville, LA 7051	1-0820				
Contact:	Mike Zeringue		Title:	Manager		
Phone No:	337-272-0202		Fax No:			
SECTION 3: Gener	al Description of th	e Waste				
Name of Waste: Pip Detailed Description detergents and flushed	of Process General			used to dry cle	aned natura	I gas pipelines, Line cleaned with
Physical State:	☐ Liquid ☑ Solid	☐ Sludge ☐ Filter Cal	«e [Powder Combination	on	
Color: Light brown to	o off-white	Odor: none				
Specific Gravity (wa	ter=1): <u>.50</u>	Density: 2 lbs	s/gal			
Layers:	Single-phase	☐ Muli	ti-phase			
Container Type: Container Size:	☐ Drum	Tote		Truck		Other (explain) Roll-off box
Frequency: Number of Units (co Texas State Waste C	• —	Monthly Other: _		Quarterly	\boxtimes	Yearly
			A.M. DO	CD1 / 124	-4	
Proper U.S. DOT Sh			A; Non-DOI	Regulated M		
Class: NA	UN/N	A: NA		PG : NA		RQ: NA
Flash Point >140	pH neutral	Reactive Sulfid	es	Reactive C	yanides	Solids 100%
Oil&Grease	TOC	Zinc	(Copper	Nic	ckel
<1500/I	<1500/I	Λ/t)	۸	~/1

SECTION 4: Physical and Chemical Data

(6.0)(1.13.0)(1.14.14.14.14.14.14.14.14.14.14.14.14.14	Concentration	Units
The waste consists of the following materials	Ranges are acceptable	or %
Foam Swabs with surface rust	99-100	%
Plastic	0-1	%
Plastic gaskets	0-1	
		+

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. Level D

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package.

Analysical report for benzene and oil on the flush water.

SECTION 7: Incompatibilities

Please list all incompatibilities (if any): oxidizers

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals:	2
TCLP Volatiles:	2
TCLP Semi-Volatiles:	2
Reactivity:	2
Corrosivity:	2
Ignitability:	7

SECTION 9: Generator's Certification

The information contained herein is based on \boxtimes generator knowledge and/or \boxtimes analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Printed Name/Title: KoseR A. THOMPSON - 1	ENVIRONMENTAL LEAD
CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer: C	Additional Information:
Date: 1-5-07 (Approved) Rejected	OS
Approval Number: 1993	

ECTION 10: Waste Receipt Classification Under 40 CFR 4	<u>137</u>
this material a wastewater or wastewater sludge? YES	⊠ NO
'Yes', complete this section.	
LEASE CHECK THE APPROPRIATE BOX. IF NO APPRO	OPRIATE CATEGORY, GO TO THE NEXT PAGE.
als Subcategory: Subpart A	
Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from ele Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equi	
Subcategory: Subpart B	
Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes	
anics Subcategory: Subpart C	
Landfill leachate Contaminated groundwater clean-up from non-petroleum sor Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations	urces
	this material a wastewater or wastewater sludge? YES 'Yes', complete this section. **LEASE CHECK THE APPROPRIATE BOX. IF NO APPRO **Use Subcategory: Subpart A* Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from ele Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equi **Subcategory: Subpart B** Used oils Oil-water emulsions or mixtures Lubricants Coolants Coolants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes **mics Subcategory: Subpart C** Landfill leachate Contaminated groundwater clean-up from non-petroleum sources solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes

(1)	If the v	vaste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess values listed below, the waste should be classified in the metals subcategory.
	Chrom Copper	um: 0.2 mg/L ium: 8.9 mg/L r: 4.9 mg/L : 37.5 mg/L
(3)		vaste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or above any of the values listed above, the waste should be classified in the organics subcategory.
		Metals Subcategory
		Oils Subcategory
		Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



ANALYTICAL REPORT

Job Number: 560-2972-1

Job Description: Dewatering Analysis 26-9494

For: Coastal Chemical Co., LLC PO BOX 820 Abbeville, LA 70511

Attention: Mr. Mike Zeringue

Timothy L. Kellogg Project Manager II tkellogg@stl-inc.com 12/22/2006

cc: Mr. Mike Broussard

Project Manager: Timothy L. Kellogg

The test results entered in this report meet all NELAC requirements for accredited parameters. Any exceptions to NELAC requirements are noted in the report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. STL Corpus Christi Certifications and Approvals: NELAC TX T104704210-06-TX, NELAC KS E-10362, NELAC LA 03034, Oklahoma 9968, USDA Soil Permit S-42935 Revised.

Severn Trent Laboratories, Inc.
STL Corpus Christi 1733 N. Padre Island Drive, Corpus Christi,
TX 78408
Tel (361) 289-2673 Fax (361) 289-2471 www.stl-inc.com page 1 of 11



EXECUTIVE SUMMARY - Detections

Client: Coastal Chemical Co., LLC

Job Number: 560-2972-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
560-2972-1	DEWATERING SAM	PLE #1 (BEGINNING)			
Specific Conductan	ce	1600		umhos/cm	120.1
Total Suspended So	olids	45	4.0	mg/L	160.2
HEM (Oil and Great	se)	6.0	5.0	mg/L	1664A
Chemical Oxygen D	Demand	44	40	mg/L	8000
560-2972-2	MIDDLE SAMPLE O	F DEWATERING #2			
Specific Conductan	ce	1500		umhos/cm	120.1
Total Suspended So		44	4.0	mg/L	160.2
HEM (Oil and Greas		6.1	5.0	mg/L	1664A
Chemical Oxygen D	•	49	40	mg/L	8000
560-2972-3	END SAMPLE OF D	EWATERING #3			
Specific Conductan	ce	1400		umhos/cm	120.1
Total Suspended So		44	4.0	mg/L	160.2
HEM (Oil and Great		5.5	5.0	mg/L	1664A

METHOD SUMMARY

Client: Coastal Chemical Co., LLC

Job Number: 560-2972-1

Descriptio	n	Lab Location	Method	Preparation Method
Matrix:	Water			
Aromatic an using PID or	d Halogenated VOCs by Gas Chromatography	STL CC	SW846 8021B	
	Purge-and-Trap	STL CC		SW846 5030B
Conductivity	, Specific Conductance	STL CC	MCAWW 120.	1
Residue, No	on-Filterable (Gravimetric, Dried at 103-105C)	STL CC	MCAWW 160.	2
HEM and So	GT-HEM by Extraction and Gravimetry	STL CC	EPA-01 1664A	
	HEM and SGT-HEM by Extraction and	STL CC		EPA-01 1664A
Chemical O	xygen Demand (COD) Colorimetric	STL CC	Hach 8000	
	Chemical Oxygen Demand (Prep))	STL CC		Hach 8000

LAB REFERENCES:

STL CC = STL Corpus Christi

METHOD REFERENCES:

EPA-01 - "Methods For The Determination Of Nonconventional Pesticides In Municipal And Industrial Wastewater", EPA/821/R/92/002, April 1992.

MCAWW - "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: Coastal Chemical Co., LLC

Job Number: 560-2972-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
560-2972-1	Dewatering Sample #1 (Beginning)	Water	12/21/2006 0430	12/21/2006 1417
560-2972-2	Middle Sample of Dewatering #2	Water	12/21/2006 0615	12/21/2006 1417
560-2972-3	End Sample of Dewatering #3	Water	12/21/2006 0652	12/21/2006 1417
560-2972-4TB	Trip Blank	Water	12/21/2006 0000	12/21/2006 1417

Job Number: 560-2972-1

Client Sample ID: Dewatering Sample #1 (Beginning)

Lab Sample ID: 560-2972-1

Date Sampled: 12/21/2006 0430 Date Received: 12/21/2006 1417

Client Matrix: Water

Analyte Result/Qualifier Unit NONE Dilution

Method: 120.1 Date Analyzed: 12/21/2006 1400

Specific Conductance 1600 umhos/cm 1.0

Job Number: 560-2972-1

Client Sample ID: Dewatering Sample #1 (Beginning)

Lab Sample ID:

560-2972-1

Date Sampled: 12/21/2006 0430

Date Received: 12/21/2006 1417

Client Matrix: Water

Analyte	Result/Qualifier	Unit		RL	Dilution
Method: 8021B	Date Analyzed:	12/22/2006	1044		
Prep Method: 5030B	Date Prepared:	12/22/2006	1044		
Benzene	ND .	ug/L		2.0	1.0
0					
Surrogate 4-Bromofluorobenzene (Surr)	92	· · · · · · · · · · · · · · · · · · ·		Acceptance Limits 64 - 120	
, ,		/0 %			
Trifluorotoluene (Surr)	96	%		68 - 120	
Method: 160.2	Date Analyzed:	12/21/2006	1630		
Total Suspended Solids	45	mg/L		4.0	1.0
Method: 1664A	Date Analyzed:	12/22/2006	0930		
Prep Method: 1664A	Date Prepared:	12/22/2006	0930		
HEM (Oil and Grease)	6.0	mg/L		5.0	1.0
Method: 8000	Date Analyzed:	12/21/2006	1345		
Prep Method: 8000	Date Prepared:	12/21/2006	1345		
Chemical Oxygen Demand	44	mg/L		40	1.0

Job Number: 560-2972-1

Client Sample ID: Middle Sample of Dewatering #2

Lab Sample ID: 560-2972-2

Date Sampled: 12/21/2006 0615 Date Received: 12/21/2006 1417

Client Matrix: Water

Analyte Result/Qualifier Unit NONE Dilution

Method: 120.1 Date Analyzed: 12/21/2006 1400

Specific Conductance 1500 umhos/cm 1.0

Job Number: 560-2972-1

Client Sample ID: Middle Sample of Dewatering #2

Lab Sample ID:

560-2972-2

Date Sampled: 12/21/2006 0615 Date Received: 12/21/2006 1417

Client Matrix: Water

Analyte	Result/Qualifier	Unit		RL	Dilution
Method: 8021B	Date Analyzed:	12/22/2006 1110	0		
Prep Method: 5030B	Date Prepared:	12/22/2006 1110) ·		
Benzene	ND	ug/L		2.0	1.0
Surrogate				Acceptance Limits	
4-Bromofluorobenzene (Surr)	92	%		64 - 120	
Trifluorotoluene (Surr)	99	%		68 - 120	
Method: 160.2	Date Analyzed:	12/21/2006 1630	ס		
Total Suspended Solids	44	mg/L		4.0	1.0
Method: 1664A	Date Analyzed:	12/22/2006 0930)		
Prep Method: 1664A	Date Prepared:	12/22/2006 0930)		
HEM (Oil and Grease)	6.1	mg/L		5.0	1.0
Method: 8000	Date Analyzed:	12/21/2006 1345	5		
Prep Method: 8000	Date Prepared:	12/21/2006 1345	;		
Chemical Oxygen Demand	49	mg/L		40	1.0

Job Number: 560-2972-1

Client Sample ID: End Sample of Dewatering #3

Lab Sample ID: 560-2972-3

Date Sampled: 12/21/2006 0652 Date Received: 12/21/2006 1417

Client Matrix: Water

Analyte Result/Qualifier Unit NONE Dilution

Method: 120.1 Date Analyzed: 12/21/2006 1400

Specific Conductance 1400 umhos/cm 1.0

Job Number: 560-2972-1

Client Sample ID: End Sample of Dewatering #3

Lab Sample ID: 560-2972-3

Date Sampled: 12/21/2006 0652 Date Received: 12/21/2006 1417

Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: 8021B	Date Analyzed:	12/22/2006 1135		
Prep Method: 5030B	Date Prepared:	12/22/2006 1135		
Benzene	ND	ug/L	2.0	1.0
Surrogate			A contonos Limita	
4-Bromofluorobenzene (Surr)	91	%	Acceptance Limits 64 - 120	
Trifluorotoluene (Surr)	97	%	68 - 120	
(22)		· · · · · · · · · · · · · · · · · · ·		
Method: 160.2	Date Analyzed:	12/21/2006 1630		
Total Suspended Solids	44	mg/L	4.0	1.0
Method: 1664A	Date Analyzed:	12/22/2006 0930		
Prep Method: 1664A	Date Prepared:	12/22/2006 0930		
HEM (Oil and Grease)	5.5	mg/L	5.0	1.0
Method: 8000	Date Analyzed:	12/21/2006 1345		
Prep Method: 8000	Date Prepared:	12/21/2006 1345		
Chemical Oxygen Demand	ND	mg/L	40	1.0

Job Number: 560-2972-1

Client Sample ID: Trip Blank Lab Sample ID: 560-2972-4 Date Sampled: 12/21/2006 0000 Date Received: 12/21/2006 1417

Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: 8021B	Date Analyzed:	12/22/2006 1200		
Prep Method: 5030B	Date Prepared:	12/22/2006 1200		
Benzene	ND	ug/L	2.0	1.0
Surrogate			Acceptance Limits	
4-Bromofluorobenzene (Surr)	92	%	64 - 120	
Trifluorotoluene (Surr)	103	%	68 - 120	

(Webster Location)

LABORATORY TEST RESULTS

Date: 12/20/2006

PROJECT: RUSH BENZENE AND OIL CUSTOMER: Coastal Chemical Co., LLC ATTN: Mike Zeringue

Job Number: 327461

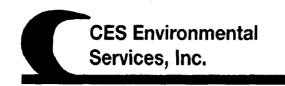
Customer Sample ID: #3 DISCHARGE WATER Date Sampled....: 12/17/2006
Time Sampled....: 18:00
Sample Matrix....: Water

Laboratory Sample ID: 327461-1 Date Received.....: 12/19/2006 Time Received.....: 08:39

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 1664A	Oil and Grease, Water	ND	1	5.5	mg/L	12/19/06	klv
EPA 120.1	Resistivity, Water	2.3380	1	1.0000	* umhos/cm	12/19/06	sur
EPA 120.1	Specific Conductivity @ 25 degrees C, Water	429	! !	1.0	* umhos/cm	12/19/06	sur
EPA 160.2	Solids, Total Suspended (TSS), Water	22.0	 	10	mg/L	12/19/06	enc
HACH 8000	Chemical Oxygen Demand (COD), Water	494]]	20.0	mg/L	12/19/06	bct
SW-846 8021B	GC Volatile Organics Benzene, Water	ND	 	1.00	 	12/19/06	cad
; 	· 		 	· 	 	;	
<u> </u>					 		
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<u> </u>]	

^{*} In Description = Dry Wgt.

Day Systems North Americe 1994
Prof # 1994



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/10/2007

Dear Danny Dove

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1994

Generator: BaySystems North America

Address: 2400 Spring Stubner

Spring, TX 77383

Waste Information

Name of Waste: Non-hazardous wastewater

TCEQ Waste Code #: CESQ1192

Container Type:

Detailed Description of Process Generating Waste:

Wastewater generated from cleaning off dried latex paint off of mixing tanks

Color: varies

Odor: none

pH: 4-8

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Standard PPE

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

Stream A

1994

4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 39048 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Gene	rator Information					
Company:	BaySystems Nort	h America				
Address:	2400 Spring Stub	ner				
City, State, Zip:	Spring, TX 77383	}				
Contact:	Danny Dove			Title:	Supervisor	
Phone No:	281-350-9000			Fax No:	281-288-6450	
24/hr Phone:	281-350-9000			_		
U.S. EPA I.D. No:	TXCESQG			-	• ^	
State I.D.	CESOG			SIC Code:	NA	
SECTION 2: Billin	a Information	Sama as Abaya				
Company:	BaySystems North					
Address:	PO Box 1509	America				
	Spring, TX 77383-1	500				
· · · -		309	T'al-	***************************************		
Contact:	Accounts Payable		Title:	201 200 / 150		
Phone No:	281-350-9000		Fax No:	281-288-6450	J	
SECTION 3: Gener						
	of Process Genera		ste water ge	nerated from cle	aning off dried latex paint off of mixing tanks	1) 11) 11) 15)
Physical State:	⊠ Liquid	Sludge		Powder		ï
V. William Comfet T T T	Solid			Combinatio		- , ,,
	⊠ Solia	Filter Ca	ike [Combinatio)II	#/
Color: Varies		Odor: None				<i>j</i> ,
Specific Gravity (wa	ter=1): <u>1-1.5</u>	Density: 91	bs/gal			
Layers:	Single-phase	⊠ Mu	lti-phase_			J/:
Container Type	Drum	₩ Tote		Truck	Other (explain)	
				T = M. J. D. D	10-250 Totes	
Container Size:	55	_250			10-250 Totes	
Frequency:	□ Weekly	☐ Month!	v 🖂] Ouarterly	Vearly	
Number of Units (co				er:		
,		ESQ119 12	0			
Texas State Waste C	ode No: Ci	ESQII				
Proper U.S. DOT Sh	••		RA, Non-DC	T Regulated Wa		
Class: Na	UN/N	A: Na		PG: Na	RQ: Na	
Flash Point	рH	Reactive Sulfi	des	Reactive C	yanides Solids	
>200	<u>4-8</u>	Qmg/l		0mg/l	0-50%	
Oil&Grease	TOC	Zinc		Copper	Nickel	
Namg/I	Namg/I	Highmg/I		Namg/i	Namg/I	

SECTION 4: Physical and Chemical Date

Concentration	()nits	
Kanges are acceptable	UP %	
50-95	%	
<1500 PPM	1%	
5-50	%	
0-5	969	
	+	
	50-95 <1500 PPM 5-50	

_		*
SECTION 5: Sufer: Related Dala		
If the Mandling of this waste requires the use of special protective equipment, please expedin. None, Standard PPE	•	
SECTION 6: Attached Supporting Documents	•	
WEDS Spects on piex built and coosinesting bline fied to this form as burt of the waste abbiton	aj buciente.	
SECTION 7: Incomparibilities		
Please list all incompatibilities (if any); None		_
SECTION 8: Gezerator's Knowledge Dounnentation		
Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORM generator knowledge:	ED based upon the following	
TCLP Metalsz X TCLP Volatiles: X TCLP Semi-Volatiles: X Reactivity: X Ignimbility: X		
SECTION 9: Concenter's Cortification		
The information contained herein is based on \(\subseteq \) generator knowledge and/or \(\subseteq \) analytical data. I have analytical data is the hest of my knowledge and ability to determine omissions of composition properties exist and that all known or suspected hazards have been disclusted are representative of all menerials described by this document. Authorized Signature:	ne that no deliberate or willful such a certify that the materials	
Printed Name/Titlet Danny Dove/ Supervisor		
	* * *, •	,
CVS USE ONLY (NO NOT WHITE IN THIS SPACE)	- Man	1 57
Compliance Officer. Karfelige Dag additional Information		المدارة
Dute 1-5-07 Approved Rejected	Treas	insted
Approval Number: 1994	water	treated for high
SECTION 10: Waste Receipt Classification Under 40 CFR 437	2 in	C.
2	GCES TO NEL	SPARK

Is	this material a wastewater or wastewater sludge? YES NO				
If	'Yes', complete this section.				
PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.					
Mot	als Subcategory: Subpart A				
	·				
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges				
H	Chromate wastes Air pollution control blow down water and sludges				
Ĭ	Spent anodizing solutions				
H	Incineration wastewaters Waste liquid mercury				
	Cvanide-containing wastes greater than 136 mg/l				
	Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations				
	Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment				
<u>Otts</u>	Subcategory: Subpart B				
R	Used oils Oil-water emulsions or mixtures				
Ħ	Lubricants				
H	Coolants Contaminated groundwater clean-up from petroleum sources				
	Used petroleum products Oil spill clean-up				
	Bilge water				
H	Rinse/wash waters from petroleum sources Interceptor wastes				
	Off-specification fuels				
Н	Underground storage remediation waste Tank clean-out from petroleum or oily sources				
	Non-contact used glycois Aqueous and oil mixtures from parts cleaning operations				
Ħ	Wastewater from oil bearing paint washes				
<u>Orga</u>	nics Subcategory: Subpart C				
	Landfill leachate				
\Box	Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes				
Ħ	Off-specification organic product				
	Still bottoms Byproduct waste glycol				
	Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation				
Ĭ	Wastewater from organic chemical product operations				
Ц	Tank clean-out from organic, non-petroleum sources				

- (1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
- (2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

Chromium: 8.9 mg/L
Copper: 4.9 mg/L
Nickel: 37.5 mg/L

(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.

| Metals Subcategory
| Oils Subcategory
| Organics Subcategory |

SECTION 11: Additional Instructions

Cadmium: 0.2 mg/L

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC:

(800) 424-9300

INTERNATIONAL:

(703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone:

(412) 923-1800

Bayer Information Phone:

(800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 7000 Tan

Material Number:

6689817

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Tan Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Harmful if inhaled. Harmful if swallowed. May affect nervous system. May cause kidney damage. May cause liver damage.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: Zine Oxide

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

Material Name: EVERCOAT 7000 Tan

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For Component: Ethylene Glycol

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Inhalation of the glycol component is unlikely due to the low vapor pressure. If misted or handled at elevated temperatures, high concentrations can produce irritation and/or difficulty breathing. May cause nervous system effects which can include symptoms of dizziness, incoordination, headache, numbness, and/or confusion. May induce cardiac arrhythmia (irregular heartbeat) in some individuals.

For Component: 1.3-Benzenedicarbonitrile, 2.4.5.6-tetrachloro-

Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Silica

May be harmful by inhalation. May cause mechanical irritation.

Chronic Inhalation

For Component: Zinc Oxide

May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Ethylene Glycol

If sufficient amounts are absorbed, systemic toxicity may occur with symptoms similar to those described in acute inhalation. May cause slight irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eve

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Ethylene Glycol

May cause slight irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation

Ingestion

Acute Ingestion

For Component: <u>Limestone</u> Slightly toxic by ingestion.

Material Name: EVERCOAT 7000 Tan

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For Component: Titanium dioxide (Rutile)

Not expected to be harmful if swallowed.

For Component: Zinc Oxide

Not expected to be harmful if swallowed.

For Component: Ethylene Glycol

May be fatal if swallowed. Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea. May cause nervous system effects which can include symptoms of dizziness, incoordination, headache, numbness, and/or confusion.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

Chronic Ingestion

For Component: Ethylene Glycol

May cause blood disorders. May cause brain damage. May cause kidney damage. May cause liver damage. May cause lung damage.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath, coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1,3-Benzenedicarbonitrile,

IARC - Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen. IARC - Overall evaluation: I Human carcinogen.

3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
7 - 13%	Limestone	1317-65-3
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1-5%	Zinc Oxide	1314-13-2
1 - 5% 1 - 5%	Ethylene Glycol	107-21-1
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1106%	Crystalline Quartz Silica	14808-60-7

Material Name: EVERCOAT 7000 Tan

Article Number: 6689817

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4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact-

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e.g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum:

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

Material Name: EVERCOAT 7000 Tan

Article Number: 6689817

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8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSIIA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIII Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Zinc Oxide (1314-13-2)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 2 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 10 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Fume.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

Ethylene Glycol (107-21-1)

US. ACGIII Threshold Limit Values

Ceiling Limit Value: 100 mg/m3 (Aerosol.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Crystalline Quartz Silica (14808-60-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

US. ACGIII Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

Material Name: EVERCOAT 7000 Tan

Article Number: 6689817

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9. Physical and chemical properties

Form:

liquid

Color:

Tan

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point: Boiling Point/Range: 0 °C (32 °F) similar to water

Flash Point:

100 °C (212 °F) similar to water

Not applicable (water based product), however, solid material will support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable

Vapor Pressure:

17 mmHg @ 20 °C (68 °F) similar to water

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

28 Days, NOAEL: 14,470 ppm, (rat)

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Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg,

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Zinc Oxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 2,500 mg/m3, (mouse)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Slightly irritating

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Aerivation: with/without)

Mouse lymphoma assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation:

with/without)

Toxicity Data for Ethylene Glycol

Acute Oral Toxicity

LD50: 4,700 mg/kg (Rat)

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Acute Inhalation Toxicity

LC50: > 200 mg/m3, 2 hrs (rat)

Acute dermal toxicity

LD50: 10,600 mg/kg (rabbit)

Skin Irritation

rabbit, Draize Test, Slightly irritating

Eye Irritation

rabbit, Draize Test, Slightly irritating

Repeated Dose Toxicity

16 Weeks, Inhalation: NOAEL: 3.49 mg/l, (Rat, Male/Female, daily)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without) Genetic Toxicity in Vivo:

Dominant Lethal Assay: negative (rat, male, oral)

Drosophila SLRL test: positive (Drosophila melanogaster,)

Micronucleus Assay: negative (mouse,)

Carcinogenicity

rat, oral, 2 years, daily

Did not show carcinogenic effects in animal experiments.

mouse, dermal, lifetime, daily

negative

Toxicity to Reproduction/Fertility

Fertility Screening, oral, (mouse, Male/Female) NOAEL (parental): 2,500 mg/kg, NOAEL (F1): > 750 mg/kg,

No effects on Reproductive parameters observed at doses tested.

Three generation study, oral, daily, (rat) NOAEL (parental): > 1,000 mg/kg, NOAEL (F1): > 1,000 mg/kg, NOAEL (F2): > 1,000 mg/kg,

Developmental Toxicity/Teratogenicity

rabbit, female, dermal, NOAEL (teratogenicity): approximately 2,000 mg/kg, NOAEL (maternal): > 1,000 mg/kg,

Fetotoxicity has been observed in animal studies. Teratogenic effects have been observed in animal studies. Rat, female, oral, NOAEL (teratogenicity): < 500 mg/kg, NOAEL (maternal): 1,000 mg/kg,

Fetotoxicity has been observed in animal studies. Teratogenic effects have been observed in animal studies.

Toxicity Data for C.I. Pigment Yellow 42

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Non-irritating

Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Material Name: EVERCOAT 7000 Tan

Article Number: 6689817

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Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without) Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

Ecological Data for Ethylene Glycol

Biodegradation

Aerobic, > 40 %, Exposure time: 20 Days

Biological Oxygen Demand (BOD)

5 Days, 0.78 - 1.81 g/g

Chemical Oxygen Demand (COD)

1.19 - 1.29 g/g

Theoretical Biological Oxygen Demand (ThBOD)

1.26 - 1.29 g/g

Bioaccumulation

Golden orfe, Exposure time: 3 Days, 10 BCF

Acute and Prolonged Toxicity to Fish

41,000 mg/l (Coho salmon, silver salmon (Oncorhynchus kisutch), 96 hrs)

LC50: 49,000 - 57,000 mg/l (Fathead minnow (Pimephales promelas), 96 hrs)

LC50: 18,500 mg/l (Rainbow trout (Salmo gairdneri), 96 hrs)

Acute Toxicity to Aquatic Invertebrates

EC50: 46,300 - 57,600 mg/l (Water flea (Daphnia magna), 48 hrs)

EC50: 13,900 - 29,700 mg/l (Ceriodaphnia sp, 48 hrs)

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Toxicity to Aquatic Plants

EC50: 6,500 - 13,000 mg/l, End Point: growth (Green algae (Selenastrum capricornutum), 96 hrs)

Toxicity to Microorganisms

EC50: 10,000 mg/l, (Pseudomonas putida, 16 hrs) EC50: 621 mg/l, (Photobacterium phosphoreum, 30 min)

Ecological Data for C.T. Pigment Yellow 42

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus))

Toxicity to Microorganisms

EC50: > 1,000 mg/l, (Pseudomonas putida)

13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Súbstances (40 CFR 302):

Components

Zinc Oxide

Included in the regulation but with no data values. See regulation for

further details

Ethylene Glycol

Reportable quantity: 5,000 lbs

Material Name: EVERCOAT 7000 Tan

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SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):
Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

Zinc Oxide

Ethylene Glycol

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	CAS-No.
>=1%	Water	7732-18-5
>=1%	Acrylic Polymer	
7 - 13%	Limestone	1317-65-3
>=1%	Aluminum hydroxide	21645-51-2
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2
1 - 5%	Ethylene Glycol	107-21-1

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	Components	CAS-No.
1 - 5%	Zinc Oxide	1314-13-2
1 - 5%	Ethylene Glycol	107-21-1
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
<0.5%	tetrachloro- Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6

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tetrachloro-

<0.5% <1 ppm

Crystalline Quartz Silica

Formaldehyde

14808-60-7

50-00-0

16. Other Information

NFPA 704M Rating

Health	l i
Flammability	1
Reactivity	0 .
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number:

000000005724

Version Date:

06/07/2006

Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741

Pittsburgh, PA 15205-9741 USA TRANSPORTATION EMERGENCY

CALL CHEMTREC:

(800) 424-9300

INTERNATIONAL: (

(703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone: Bayer Information Phone: (412) 923-1800

(800) 662-2927

1. Product and Company Identification

Product Name:

and the same of

EVERCOAT 500QS WITHTE

Material Number:

6663796

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Milky White Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Harmful if inhaled. Contains material which may cause cancer.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium Moxide (Rutile)

May cause mechanical irritation.

For Component: Zinc Oxide

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

For Component: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

Material Name: EVERCOAT 500QS WHITE

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Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Silica

May be harmful by inhalation. May cause mechanical irritation.

Chronic Inhalation

For Component: Zinc Oxide

May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eve

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: Titanium dioxide (Rutile)

Not expected to be harmful if swallowed.

For Component: Zinc Oxide

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath,

Material Name: EVERCOAT 500QS WHITE

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coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1,3-Benzenedicarbonitrile,

· IARC - Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: 1 Human carcinogen.

3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
20 - 30%	Limestone	1317-65-3
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

Eve Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Material Name: EVERCOAT 500QS WHITE

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Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum:

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSIIA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Zinc Oxide (1314-13-2)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 2 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 10 mg/m3 (Respirable fraction.)

US. OSIIA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Fume.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Respirable fraction.)

US. OSHA Pable Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

Crystalline Quartz Silica (14808-60-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

Material Name: EVERCOAT 500QS WITITE

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US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. Physical and chemical properties

Form:

liquid

Color:

Milky White

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable

Vapor Pressure:

17 mmHg @ 20 °C (68 °F) similar to water

Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable __

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

Material Name: EVERCOAT 500QS WHITE

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11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time-24 hrs, Moderately irritating

Eve Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

28 Days, NOAEL: 14,470 ppm, (rat)

Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg,

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3 (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Material Name: EVERCOAT 500QS WHITE

Article Number: 6663796

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Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Zinc Oxide

Acute Oral Toxicity

LD50: > 5.000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 2,500 mg/m3, (mouse)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Slightly irritating

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Mouse lymphoma assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation:

with/without)

Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without) Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/L (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

Material Name: EVERCOAT 500QS WHITE

Article Number: 6663796

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13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

Zinc Oxide

Included in the regulation but with no data values. See regulation for

further details

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

Zinc Oxide

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by

Material Name: EVERCOAT 500QS WHITE

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characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	CAS-No.
>=1%	Water	7732-18-5
20 - 30%	Limestone	1317-65-3
>=1%	Acrylic Polymer	
>=1%	Aluminum hydroxide	21645-51-2
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	Components	CAS-No.
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	Ethylene Glycol	107-21-1
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Ammonium Hydroxide	1336-21-6

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7
<5 ppm	Formaldehyde	50-00-0
<20 ppm	Cadmium	7440-43-9

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic. - Developmental toxin. - Female reproductive toxin. - Male reproductive toxin.

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<5 ppm	Formaldehyde	50-00-0
<20 ppm	Lead	7439-92-1
<20 ppm	Cadmium	7440-43-9

16. Other Information

NFPA 704M Rating

Health	1
Flammability	1
Reactivity	0
Other	

Material Name: EVERCOAT 500QS WIIITE	Article Number: 6663796

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0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number:

000000005636

Version Date:

06/07/2006

Report Version: 1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

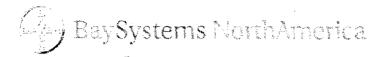
Material Name: EVERCOAT 500QS WITTE

Article Number: 6663796

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC: INTERNATIONAL:

(800) 424-9300

NAL: (703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone: Bayer Information Phone:

(412) 923-1800

: (800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 510

Material Number:

6663826

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Gray Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fire-

exposed containers to minimize the risk of rupture.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

<u>Inhalation</u>

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause

mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

Material Name: EVERCOAT 510

Article Number: 6663826

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For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

Eye

Acute Eve

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

Ingestion

Acute Ingestion

For Component: <u>Limestone</u> Slightly toxic by ingestion.

For Component: Titanium dioxide (Rutile)

Not expected to be harmful if swallowed.

Carcinogenicity:

No Carcinogenic substances as defined by IARC, NTP and/or OSHA

3. Composition/Information on Ingredients

Hazardous Components

$\underline{\mathbf{W}}$	<u>eight</u>	%

Components

CAS-No.

25 - 35% 1 - 5% Limestone
Titanium dioxide (Rutile)

13463-67-7

4. First Aid Measures

Eve Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Material Name: EVERCOAT 510

Article Number: 6663826

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Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum:

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eve Protection

splash proof goggles.

Material Name: EVERCOAT 510

Article Number: 6663826

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Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. Physical and chemical properties

Form:

liquid

Color:

Gray

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable

Vapor Pressure: Specific Gravity: 17 mmHg @ 20 °C (68 °F) similar to water 1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

Material Name: EVERCOAT 510

Article Number: 6663826

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LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

28 Days, NOAEL: 14,470 ppm, (rat)

Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg,

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Titanium dioxide (rutile)

Acute Oral Toxicity

LD50: > 24,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 6820 mg/m3, 4 hrs (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Other assay: negative, Negative results were reported in various in vitro studies. (Bacillus subtilis)

Carcinogenicity

Rat, Male/Female, oral, 103 weeks, daily

Material Name: EVERCOAT 510

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No carcinogenic effects observed at the doses tested, mouse, Male/Female, oral, 103 days, daily
No carcinogenic effects observed at the doses tested.
Rat, Male/Female, inhalation,

Animal experiments showed a statistically significant number of tumours.

Toxicity to Reproduction/Fertility

Three generation study, oral, (Rat) NOAEL (parental): 5 mg/L (as Titanium). Reproductive effects have been observed in animal studies.

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

Material Name: EVERCOAT 510

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Article Number: 6663826

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

None

SARA Section 311/312 Hazard Categories:

Acute Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

None

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	CAS-No.
25 - 35%	Limestone	1317-65-3
>=1%	Water	7732-18-5
>= %	Acrylic Polymer —	
>=1%	Aluminum hydroxide	21645-51-2
1 - 5%	Titanium dioxide (Rutile)	13463-67-7
>= %	Titanium dioxide (rutile)	1317-80-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	Components	CAS-No.
0.1 - 1%	Ethylene Glycol	107-21-1

Material Name: EVERCOAT 510 Article Number: 6663826

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0.1 - 1%

Ammonium Hydroxide

1336-21-6

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %

Components Ammonia <u>CAS-No.</u> 7664-41-7

<10 ppm

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

Weight %

Components

CAS-No.

<1 ppm

Formaldehyde

50-00-0

16. Other Information

NFPA 704M Rating

Health	1
Flammability	1
Reactivity	0
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835 000000005643

MSDS Number:

Version Date:

06/10/2006

Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

Material Name: EVERCOAT 510

Article Number: 6663826

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC:

(800) 424-9300

INTERNATIONAL:

(703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone:

(412) 923-1800

Bayer Information Phone:

(800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 800 TAN

Material Number:

6689833

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Tan Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fireexposed containers to minimize the risk of rupture. Harmful if inhaled. Contains material which may cause cancer.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Silica

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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May be harmful by inhalation. May cause mechanical irritation.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eve

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: Titanium dioxide (Rutile)

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath,

coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1,3-Benzenedicarbonitrile,

IARC -- Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: 1 Human carcinogen.

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
30 - 40%	Limestone	1317-65-3
5 - 10%	Titanium dioxide (Rutile)	13463-67-7
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

Eve Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum:

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIII Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Crystalline Quartz Silica (14808-60-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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9. Physical and chemical properties

Form:

liquid

Color:

Tan

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable not applicable

Upper Explosion Limit: Vapor Pressure:

17 mmHg @ 20 °C (68 °F) similar to water

Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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rabbit, Exposure Time: 24 hrs, Non-irritating

Eve Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without)
Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 prg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

13. Disposal considerations

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sca transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

None

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required: Components

1.3-Benzenedicarbonitrile, 2.4.5.6-tetrachloro-

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	-	CAS-No.
>=1%	Water		7732-18-5
30 - 40%	Limestone	-	1317-65-3
>= 1 %	Acrylic Polymer		
5 - 10%	Titanium dioxide (Rutile)		13463-67-7

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	<u>Components</u>	CAS-No.
0.1 - 1%	Ethylene Glycol	107-21-1
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	

MA Right to Know Extraordinarily Hazardous Substance List:

The state of the s		
Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

•		
<u>Weight %</u>	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

16. Other Information

NFPA 704M Rating

Health	1
Flammability	1
Reactivity	0
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. IIMIS and NFPA ratings are provided by Baysystems North America as a customer service.

ELICACO AT DOOTAN	Article Number: 6689833
Material Name: EVERCOAT 800 TAN	Article Number, 0009033
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^{* =} Chronic Health Hazard

Contact Person:

Product Safety Department

Telephone: MSDS Number:

(412) 777-2835 000000005660

Version Date:

06/07/2006

Report Version: 1.2

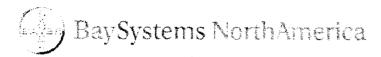
This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC:

(800) 424-9300 (703) 527-3887

INTERNATIONAL:

.

NON-TRANSPORTATION

Bayer Emergency Phone:

(412) 923-1800

Bayer Information Phone:

(800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 700 NAVY GRAY

Material Number:

6689787

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Gray Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: Zinc Oxide

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

For Component: Crystalline Quartz Silica

May be harmful by inhalation. May cause mechanical irritation.

Material Name: EVERCOAT 700 NAVY GRAY

Article Number: 6689787

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Chronic Inhalation

For Component: Zinc Oxide

May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eve

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: Titanium dioxide (Rutile)

Not expected to be harmful if swallowed.

For Component: Zinc Oxide

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath,

coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Material Name: EVERCOAT 700 NAVY GRAY

Article Number: 6689787

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Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicify:

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: I Human caremogen.

3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
30 - 40%	Limestone	1317-65-3
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Upusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

Material Name: EVERCOAT 700 NAVY GRAY

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Article Number: 6689787

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum: maximum: 1 °C (33.8 °F)

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Zinc Oxide (1314-13-2)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 2 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 10 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Fume.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

Crystalline Quartz Silica (14808-60-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

US. ACGIII Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Material Name: EVERCOAT 700 NAVY GRAY

Article Number: 6689787

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Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. Physical and chemical properties

Form:

liquid

Color:

Gray

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable 17 mmIlg @ 20 °C (68 °F) similar to water

Vapor Pressure: Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

Material Name: EVERCOAT 700 NAVY GRAY

Article Number: 6689787

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LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Zinc Oxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 2,500 mg/m3, (mouse)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Slightly irritating

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Mouse lymphoma assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation:

with/without)

Toxicity Data for Crystalline Quartz Silica

Material Name: EVERCOAT 700 NAVY GRAY

Article Number: 6689787

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Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without)
Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Material Name: EVERCOAT 700 NAVY GRAY

Article Number: 6689787

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Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

Zinc Oxide

Included in the regulation but with no data values. See regulation for

further details

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

Zinc Oxide

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	CAS-No.
30 - 40%	Limestone	1317-65-3
>=1%	Water	7732-18-5
>=1%	Acrylic Polymer	
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1-5%	Zinc Oxide	1314-13-2

New dersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	Components	CAS-No.
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	Ethylene Glycol	107-21-1

Material Name: EVERCOAT 700 NAVY GRAY Article Number: 6689787

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MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7
<5 ppm	Formaldehyde	50-00-0
<10 ppm	Cadmium	7440-43-9

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic. - Developmental toxin. - Female reproductive toxin. - Male reproductive toxin.

Weight %	Components	CAS-No.
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<5 ppm	Formaldehyde	50-00-0
<10 ppm	Lead	7439-92-1
<10 ppm	Cadmium	7440-43-9

16. Other Information

NFPA 704M Rating

Health	1
Flammability	1
Reactivity	0
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number:

00000005647

Version Date:

06/07/2006

Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

Material Name: EVERCOAT 700 NAVY GRAY

Article Number: 6689787

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road

Pittsburgh, PA 15205-9741

USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC: INTERNATIONAL:

(800) 424-9300

(703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone: Bayer Information Phone:

(412) 923-1800 (800) 662-2927

1. Product and Company Identification

Product Name: Material Number: **EVERCOAT 810 GRAY**

6689841

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Gray Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fireexposed containers to minimize the risk of rupture. Harmful if inhaled. Contains material which may cause cancer.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: 4,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Silica

Material Name: EVERCOAT 810 GRAY

Article Number: 6689841

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May be harmful by inhalation. May cause mechanical irritation.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be iffitating.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eve

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: <u>Titanium dioxide (Rutile)</u>

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath, coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1,3-Benzenedicarbonitrile,

IARC - Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: I Human carcinogen.

Material Name: EVERCOAT 810 GRAY

Article Number: 6689841

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3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
15 - 25%	Limestone	1317-65-3
1 - 5%	Titanium dioxide (Rutile)	13463-67-7
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal prefective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

Material Name: EVERCOAT 810 GRAY

Article Number: 6689841

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7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum:

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Crystalline Quartz Silica (14808-60-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

Material Name: EVERCOAT 810 GRAY

Article Number: 6689841

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9. Physical and chemical properties

Form:

liquid

Color: Odor:

Gray Ammonia

pH:

- 9-9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable not applicable

Upper Explosion Limit: Vapor Pressure:

17 mmHg @ 20 °C (68 °F) similar to water

Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

Material Name: EVERCOAT 810 GRAY

Article Number: 6689841

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28 Days, NOAEL: 14,470 ppm, (rat)

Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg,

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eve Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Titanium dioxide (rutile)

Acute Oral Toxicity

LD50: > 24,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 6820 mg/m3, 4 hrs (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Other assay: negative, Negative results were reported in various in vitro studies. (Bacillus subtilis)

Carcinogenicity

Rat, Male/Female, oral, 103 weeks, daily

No carcinogenic effects observed at the doses tested.

mouse, Male/Female, oral, 103 days, daily

No carcinogenic effects observed at the doses tested.

Rat, Male/Female, inhalation,

Animal experiments showed a statistically_significant number of tumours.

Toxicity to Reproduction/Fertility

Three generation study, oral, (Rat) NOAEL (parental): 5 mg/L (as Titanium),

Reproductive effects have been observed in animal studies.

Material Name: EVERCOAT 810 GRAY

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Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without)

Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Material Name: EVERCOAT 810 GRAY

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Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

None

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required: Components

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

US, EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight % Components	CAS-No.
>=1% Water	7732-18-5
>=1% Acrylic Polymer	
15 - 25% Limestone	1317-65-3
>=1% Aluminum hydroxide	21645-51-2
1 - 5% Titanium dioxide (Rutile)	13463-67-7
>=1% Titanium dioxide (rutile)	1317-80-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Material Name: EVERCOAT 810 GRAY Article Number: 6689841

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Components Weight % 0.1 - 1%Ethylene Glycol 0.1 - 1%1,3-Benzenedicarbonitrile, 2,4,5,6-1897-45-6

tetrachloro-

MA Right to Know Extraordinarily Hazardous Substance List:

Weight % Components CAS-No. 0.1 - 1%1.3-Benzenedicarbonitrile, 2,4,5,6-1897-45-6 tetrachloro-0.1 - 1% Crystalline Quartz Silica 14808-60-7 < 0.1% Ammonia 7664-41-7

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

Weight % **Components** CAS-No. 0.1 - 1% 1,3-Benzenedicarbonitrile, 2,4,5,6-1897-45-6 tetrachloro-0.1 - 1% Crystalline Quartz Silica 14808-60-7

16. Other Information

NFPA 704M Rating

Health	1
Flammability	1
Reactivity	0
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number:

000000005662 ---

Version Date:

06/07/2006

Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

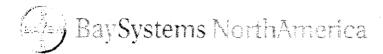
Material Name: EVERCOAT 810 GRAY

Article Number: 6689841

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC: INTERNATIONAL:

(800) 424-9300

(703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone:

(412) 923-1800

Bayer Information Phone:

(800) 662-2927

1. Product and Company Identification

Product Name: Material Number: **EVERCOAT 500 GRAY**

6689728

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Gray Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fireexposed containers to minimize the risk of rupture. Harmful if inhaled. Contains material which may cause cancer.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: Zinc Oxide

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

For Component: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

Material Name: EVERCOAT 500 GRAY

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Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Silica

May be harmful by inhalation. May cause mechanical irritation.

Chronic Inhalation

For Component: Zinc Oxide

May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.

<u>Skin</u>

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eve

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: Titanium dioxide (Rutile)

Not expected to be harmful if swallowed.

For Component: Zinc Oxide

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath,

Material Name: EVERCOAT 500 GRAY

Article Number: 6689728

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coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1,3-Benzenedicarbonitrile,

IARC - Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: 1 Human carcinogen.

3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
20 - 30%	Limestone	1317-65-3
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Material Name: EVERCOAT 500 GRAY Article Number: 6689728

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Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum: maximum: 1 °C (33.8 °F)

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSIIA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US, ACGIII Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Zine Oxide (1314-13-2)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 2 mg/m3 (Respirable fraction.)

US. ACGIII Threshold Limit Values

Short Term Exposure Limit (STEL): 10 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Fume.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Respirable fraction.)

US. OS11A Table Z-1 Limits for Air Contaminants (29 CER 1910.1000) PEL: 15 mg/m3 (Total dust.)

Crystalline Quartz Silica (14808-60-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

Material Name: EVERCOAT 500 GRAY Article Number: 6689728

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US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. Physical and chemical properties

Form:

liquid

Color:

Gray

Odor:

Ammonia

pH:

9-9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable

Vapor Pressure:

17 mmllg @ 20 °C (68 °F) similar to water 1.3 - 1.5

Specific Gravity:

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

Material Name: EVERCOAT 500 GRAY

Article Number: 6689728

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11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

28 Days, NOAEL: 14,470 ppm, (rat)

Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg.

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation; with/without)

Genetic Toxicity in Vivo:

Material Name: EVERCOAT 500 GRAY

Article Number: 6689728

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Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Zinc Oxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 2,500 mg/m3, (mouse)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Slightly irritating

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Mouse lymphoma assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation: with/without)

Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without)

Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0:"> 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EÇ0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

Material Name: EVERCOAT 500 GRAY

Article Number: 6689728

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13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse rempty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

Zinc Oxide

Included in the regulation but with no data values. See regulation for

further details

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

Zinc Oxide

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by

Material Name: EVERCOAT 500 GRAY

Article Number: 6689728

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characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	<u>Components</u>	CAS-No.
>=1%	Water	7732-18-5
20 - 30%	Limestone	1317-65-3
>=1%	Acrylic Polymer	
>=1%	Aluminum hydroxide	21645-51-2
3 - 7%	Titanium dioxide (Rutile)	13463-67 - 7
1 - 5%	Zinc Oxide	1314-13-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous **Substances Lists:**

Weight %	Components	CAS-No.
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	Ethylene Glycol	107-21-1
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7
<5 ppm	Formaldehyde	50-00-0

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic. -Developmental toxin. - Female reproductive toxin. - Male reproductive toxin.

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<5 ppm	Formaldehyde	50-00-0
<1 ppm	Lead	7439-92-1
<1 ppm	Cadmium	7440-43-9

16. Other Information

NFPA 704M Rating	<u> </u>
Health -	1
Flammability	i
Reactivity -	0
Other	

0=Insignificant I=Slight 2=Moderate 3=High 4=Extreme

Article Number: 6689728 Material Name: EVERCOAT 500 GRAY Report Version: 1.2 Page: 9 of 10

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. IIMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number:

00000005639

Version Date:

06/07/2006

Report Version:

1.2

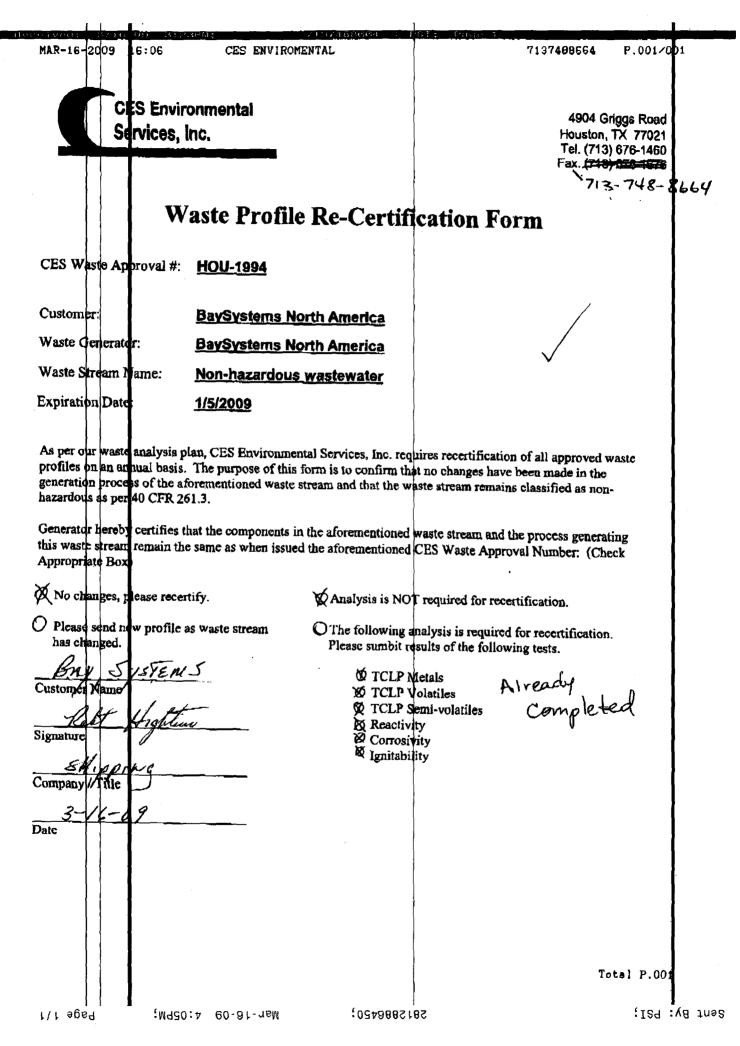
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Material Name: EVERCOAT 500 GRAY

Article Number: 6689728

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^{* =} Chronic Health Hazard



Laboratory Analysis Report

Total Number of Pages: 14

Job ID: 08090336



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name:

Bayer Material Science Spring - Stuebner Rd. (Baysystems North America)

Report To:

Client Name:

CES Environmental

P.O.#.: 0908-40

Attn:

Morgan McCarley

Sample Collected By: Duram Z.

Client Address: 4904

4904 Griggs Rd

Date Collected: 09/17/08

City, State, Zip: Houston, Texas, 77021

A&B Labs has analyzed the following samples...

Client Sample ID

Matrix

A&B Sample ID

Latex Wastewater

Sludge

08090336.01

Sonia West

recease

Released By: Sonia West

Title:

Senior Project Manager

Date:

9/22/2008



This Laboratory is NELAP (T104704213-08-TX) accredited. Effective: 07/01/2008; Expires: 06/03/2009 Scope: Non-Potable Water, Drinking Water, Air, Solid, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client.

Date Received: 09/17/2008 15:05

LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID: 08090336

Date:

9/22/2008

General Term Definition

Back-Wt

Back Weight

BRL

Below Reporting Limit

cfu

colony-forming units

Conc.

Concentration

D.F.

Dilution Factor

Front-Wt

Front Weight

LCS

Laboratory Check Standard

Laboratory Check Standard Duplicate

LCSD

Matrix Spike

MS

MSD

Matrix Spike Duplicate

мw

Molecular Weight

Post-Wt

Post Weight

ppm Pre-Wt

Q

parts per million Previous Weight

Qualifier

RegLimit RPD

Regulatory Limit Relative Percent Difference

Reporting Limit

Surrogate

Time

TNTC

RptLimit

surr

Т

Too numerous to count

Qualifier Definition

S5

Target compounds caused elevation of baseline. Surrogate not calculated

LABORATORY TEST RESULTS

Job ID: 08090336

Date 9/22/2008

Client Name:

CES Environmental

Attn: Morgan McCarley

Project Name:

Bayer Material Science Spring - Stuebner Rd.

Client Sample ID:

Latex Wastewater

Job Sample ID:

08090336.01

Date Collected: Time Collected: 09/17/08 11:00

Sample Matrix

Sludge

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit Q	Date Time	Analyst
SW-846 1010	Ignitability (Flash Point) Ignitability	>150	°F	1			09/19/08 09:00	SG
SW-846 6010C	TCLP Metals							•
011 010 00100	Antimony	0.058	mg/L	1	0.04	1	09/19/08 17:23	EG
	Arsenic	BRL	mg/L	1	0.04	1.8	09/19/08 17:23	EG
	Barium	0.157	mg/L	1	0.04	100.0	09/19/08 17:23	EG
	Beryllium	BRL	mg/L	1	0.04	0.08	09/19/08 17:23	EG
	Cadmium	BRL	mg/L	1	0.04	0.5	09/19/08 17:23	EG
	Chromium	BRL	mg/L	1	0.04	5.0	09/19/08 17:23	EG
	Lead	BRL.	mg/L	1	0.04	1.5	09/19/08 17:23	EG
	Nickel	BRL	mg/L	1	0.04	70	09/19/08 17:23	EG
	Selenium	BRL	mg/L	1	0.1	1.0	09/19/08 17:23	EG
	Silver	BRL.	mg/L	1	0.04	5.0	09/19/08 17:23	EG
SW-846 7.3	Reactivity Reactive Cyanide	BRL	mg/Kg	1	25		09/17/08 16:00	KS
SW-846 7.3	Reactivity Reactive Sulfide	BRL	mg/Kg	1	25		09/17/08 16:00	KS
SW-846 7470A	TCLP Metals, Mercury Mercury	BRL	mg/L	1	0.0005	0.2	09/18/08 14:59	тк
SW-846 8021B	TCLP BTEX & MTBE Benzene	BRL	mg/L	1	0.002	0.5	09/18/08 17:28	нк
	Trifluorotoluene(surr)	86	%	1	75-125		09/18/08 17:28	НК
SW-846 9045D	Corrosivity, pH pH	8.69	s.u.				09/18/08 11:00	SG
TX 1005	Total Petroleum Hydrocarbons C6-C12	166	mg/Kg	1	12.7		09/18/08 11:55	WS
	>C12-C28	1639	mg/Kg	10	182		09/18/08 12:18	WS
	>C12-C26 >C28-C35	298	mg/Kg	1	19.6		09/18/08 11:55	WS
	Total C6-C35	2103	mg/Kg	10			09/18/08 12:18	WS
	1-Chlorooctane(surr)	148	//////////////////////////////////////	1	50-149		09/18/08 12:18	WS
•	Chlorooctadecane(surr)	N/A	%	1	50-149	S5	09/18/08 12:18	WS



Job ID: 08090336

Date:

9/22/2008

Qual

Qual

Analysis : Corrosivity, pH

Method:

SW-846 9045D

Reporting Units: s.u.

QC Batch ID : Qb08091810

Parameter

рН

Created Date: 09/18/08

Created By: Sgarcia

Samples in This QC Batch:

08090336.01

QC Type: Duplicate

QC Sample ID: 08090112.01

QCSample

Result

7.39

Sample

7.37

Result

Units

s.u.

RPD

RPD CtrlLimit

0.27 5

QC Type: LCS and LCSD

LCS LCS Result Parameter Assigned рН 4.00 4.05

LCSD Assigned

LCSD Result

RPD

RPD CtrlLimit

Tolerance 3.95-4.05

Refer to the Definition page for terms.



Job ID: 08090336

Date:

9/22/2008

Analysis: TCLP Metals, Mercury Method: SW-846 7470A Reporting Units: mg/L

Samples in This QC Batch: 08090336.01

Digestion:

TCLP Prep:

PB08091813 PB08091802 Prep Method: SW-846 7470A Prep Method: SW-846 1311 **D D L 2014**0100

Created By: Tkhuc

Prep Date: 09/18/08 10:00 **Prep By:**

Prep Date: 09/17/08 17:00 Prep By:

Tkhuc Ksudha

QC Type: Method Blank						
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
Mercury	7439-97-6	BRL	mg/L	1	0.0005	

QC Type:	LCS and LCSI)									
Parameter		LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Mercury		0.005	0.0053	106	0.005	0.0049	98	7.84	20	71-143	

QC Type: MS ar	QC Type: MS and MSD												
QC Sample ID:	08090294.01												
	Sample	MS	MS	MS	MSD	MSD	MSD		RPD	%Rec	.]		
Parameter	Result	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual		
Mercury	BRL	0.005	0.0050	100	0.005	0.0046	92	8.33	35	61-175			



Job ID: 08090336

Date:

9/22/2008

Analysis: Total Petroleum Hydrocarbons

Method:

TX 1005

Reporting Units:

mg/Kg

QC Batch ID: Qb08091819

Created Date: 09/18/08

Created By: Dshen

Samples in This QC Batch : 08090336.01

Sample Preparation: PB08091814

Prep Method: TX 1005

Prep Date: 09/18/08 11:00 Prep By:

Dshen

QC Type: Method Bla	nk					
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
C6-C12		BRL	mg/Kg	1	12.7	
>C12-C28		BRL	mg/Kg	1	18.2	
>C28-C35		BRL	mg/Kg	1	19.6	
Total C6-C35		BRL	mg/Kg	1		

QC Type: LCS	and LCSD									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
C6-C12	500	436	87.2	500	427	85.4	2.08	20	75-125	
>C12-C28	500	433	86.6	500	427	85.4	1.39	20	75-125	1 .
>C28-C35	500	470	94	500	469	93.8	0.21	20	75-125	<u> </u>



Job ID: 08090336

Date:

9/22/2008

Analysis: Reactivity

Method:

SW-846 7.3

Reporting Units: mg/Kg

QC Batch ID: Qb08091824

Created Date: 09/18/08

Created By: Ksudha

Samples in This QC Batch: 08090336.01

Sample Preparation: PB08091822

Prep Method: SW-846 7.3

Prep Date: 09/17/08 16:00 Prep By:

Ksudha

QC Type: Method Blank						
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
Reactive Sulfide		BRL	mg/Kg	1	25	

QC Type: Dupl	icate						
QC Sample ID:	08090132.01						. 1
	QCSample	Sample			RPD		}
Parameter	Result	Result	Units	RPD	CtrlLimit	<u> </u>	Qual
Reactive Sulfide	BRL.	BRL	mg/Kg		20		

QC Type: LCS and LCS	D			-						
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
Reactive Sulfide	1000	960	96	1000	960	96	0	20	40-120	



Job ID: 08090336

Date:

9/22/2008

Analysis : Reactivity

Method:

SW-846 7.3

Reporting Units: mg/Kg

QC Batch ID: Qb08091825

Created Date: 09/18/08

Created By: Ksudha

Samples in This QC Batch:

Sample Preparation: PB08091824

08090336.01

Prep Method: SW-846 7.3

Prep Date: 09/17/08 16:00 Prep By:

Ksudha

QC	Type:	Method	Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit	<u>, </u>	Qual
Reactive Cyanide		BRL	mg/Kg	1	25		

QC Type: Duplicate

QC Sample ID: 08090132.01

	QCSample	Sample			RPD	
Parameter	Result	Result	Units	RPD	CtrlLimit	Qual
Reactive Cyanide	BRL	BRL	mg/Kg		20	

QC Type: LCS and LC	SD									
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Reactive Cyanide	5.0	2.12	42.4	5.0	2.06	41.2	2.87	20	40-120	



TCLP Prep:

Job ID: 08090336

Date:

9/22/2008

Analysis : TCLP Metals Method : SW-846 6010C Reporting Units : mg/L

Samples in This QC Batch: 08090336.01

Digestion: PB08091833

Prep Date: 09/18/08 15:00 Prep By: Prep Date: 09/17/08 17:00 Prep By:

Egonda Ksudha

QC Type: Method B	Blank				 	
Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
Antimony	7440-36-0	BRL	mg/L	1	0.04	
Arsenic	7 44 0-38-2	BRL	mg/L	1	0.04	
Barium	7440-39 - 3	BRL	mg/L	1	0.04	
Beryllium	7440-41-7	BRL	mg/L	1	0.04	
Cadmium	7440-43-9	BRL	mg/L	1	0.04	
Chromium	7440-47-3	BRL	mg/L	1	0.04	
Lead	7439-92-1	BRL	mg/L	1	0.04	
Nickel	7440-02-0	BRL	mg/L	1	0.04	
Selenium	7782-49-2	BRL	mg/L	1	0.1	
Silver	7440-22-4	BRL	mg/L	} 1	0.04	

QC Type: LCS a	nd LCSD				·		-			
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Antimony	2	2.11	106	2	2.11	106	0	20	80-120	
Arsenic	2	2.10	105	2	2.10	105	0	20	80-120	1
Barium	2	2.05	103	2	2.04	102	0.48	20	80-120	1
Beryllium	2	2.11	106	2	2.11	106	0	20	80-120	
Cadmium	2	2.04	102	2	2.03	102	0.49	20	80-120	
Chromium	2	2.06	103	2	2.05	103	0.48	20	80-120	}
Lead	2	2.02	101	2	2.03	102	0.49	20	80-120	ļ
Nickel	2	2.04	102	2	2.03	102	0.49	20	80-120	1
Selenium	2	2.03	102	2	2.03	102	0	20	80-120	İ
Silver	2	2.01	101	2	2.00	100	0.49	20	80-120	

QC Type: MS an	d MSD										
QC Sample ID:	08090282.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Antimony	0.041	2	2.04	100						70-130	
Arsenic	BRL	2	2.07	104	1					45-138	
Barium	0.623	2	2.39	88.4			ļ			39-135	
Beryllium	BRL	2	2.05	102			ĺ			70-130	
Cadmium	BRL	2	1.93	96						56-125	
Chromium	BRL	2	1.95	97.2						52-125	
Lead	BRL	2	1.93	95.9			l			55-125	1

Refer to the Definition page for terms.



Job ID: 08090336

Date:

9/22/2008

Analysis : TCLP Metals

Method:

SW-846 6010C

Reporting Units:

mg/L

QC Batch ID: Qb08091833

Created Date: 09/18/08

Created By: Egonda

Samples in This QC Batch : 08090336.01

QC Type: MS and MSD											
QC Sample ID: 08090	282.01										
	Sample	MS	MS	MS	MSD	MSD	MSD		RPD	%Rec	
Parameter	Result	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual
Nickel	BRL	2	1.89	94.2						70-130	
Selenium	BRL	2	2.13	106			}			18-137	
Silver	BRL	2	2.06	103						26-148	[



Job ID: 08090336

Date:

9/22/2008

Qual

Analysis: TCLP BTEX & MTBE

Method:

SW-846 8021B

Reporting Units:

mg/L

QC Batch ID: Qb08091905

Created Date: 09/19/08

Created By: Hkhuc

Samples in This QC Batch:

08090336.01

Prep Method: SW-846 1311

Prep Date: 09/18/08 12:00 Prep By: Hkhuc

Sample Preparation : TCLP Prep:

PB08091901 PB08091802

Prep Method: SW-846 1311

Result

BRL

Prep Date: 09/17/08 17:00 Prep By: Ksudha

QC Type: Method Blank

Parameter Benzene

CAS # 71-43-2 Units mg/L D.F. **RptLimit**

1

0.002

OC Type: LCS and LCSD

, ,										ì
Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Benzene	0.02	0.02	100	0.02	0.02	100	0	20	80-120	



Job ID: 08090336

Date:

9/22/2008

Analysis : Ignitability (Flash Point)

Method:

SW-846 1010

Reporting Units: °F

QC Batch ID: Qb08091924

Created Date: 09/19/08

Created By: Sgarcia

Samples in This QC Batch: 08090336.01

QC Type: Dupli	icate						Ī
QC Sample ID:	08090173.01						
	QCSample	Sample			RPD		- [
Parameter	Result	Result	Units	RPD	CtrlLimit		Qual
Ignitability	90	87	°F	3.39	20		

QC Type:	LCS and LCSI)									
Parameter		LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Oual
					,			111.5			
Ignitability		83	85	102	83	85	102	0	20	75-125	1 1



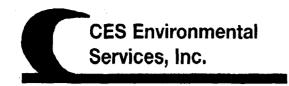
Sample Condition Checklist

Date: 09/22/08

A&B	JobID :	0809033	36	Da	ite Received	: 09,	/17/2008		Time	Received :	3:05PM		
Clier	nt Name :	CES Envi	ironme	ntal			***************************************			***************************************	······································		
Геm	perature :	23.9°C	···	Sa	mple pH:	N/A	A					·	
***************************************		Spelling report of selection			Cŀ	neck Po	iinte					Yes	No
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2.) in a coolei	r.	······································			······	······································		***************************************		<u> </u>	X
3.	If yes, ice					***************************************			······································	·		ļ	X
4.) received v		n-of-custo	dy.	······································	······································					X	
5.		ned and dat		······································	······	·····						X	
6.	Sample(s) received v	vith sign	ed sample	custody sea	al.				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		N/A	
7.	ļ				comment).	0.11.1		~	5. 11.			X	
8.	Matrix :	Water	Soil	Liquid	Sludge 🔽	Solid	Cassette	Tube	Bulk	Badge	Food	Oth	er
							<u> </u>			<u> </u>			l
9.	Sample(s)	were recei	ived in a	ppropriate	container(s	s). 						Х	
10.	Sample(s)) were recei	ived witl	n proper pi	eservative						······································		
11.	All sample	es were log	ged or la	beled.					·····		······································	X	
12.	Sample II	labels mat	tch C-O-	C ID's								X	
13.	Bottle cou	int on C-O-	C match	es bottles 1	found.	······································					***************************************	Х	
14.	Sample vo	olume is suf	fficient f	or analyse:	s requested.						·	Х	
15.	Samples v	vere receiv	ed withi	n the hold	time.							Х	
16.	VOA vials	completely	filled.									N/A	
17.	Sample ac	cepted.										Х	
Com	ments : Inc	lude action	s taken	to resolve	discrepancie	es/prob	lem:		***************************************		***************************************	·1·······	
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Rece	eived by:	Mperalta					Check ir	by/date:	Mperalta	/ 09/17/2008		***************************************	
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METHOD OF SHIPMENT			E	BILL C	F LAI	DING	/TRA	CKIN	IG#									Pie	A&B cann ease FAX wr	ot accept	verbaro nges to 7	13-453-6091
LAB USE ONLY SAMPLINGR	ENTAL		P/U															ç	Samples will	he dispos	sed of af	ter 30 days
The state of the s			,0															ì	A&B reserve	s the righ	t to retu	n samples

Bay Systems North Americages



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/10/2007

Dear Danny Dove

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1995

Generator: BaySystems North America

Address: 2400 Spring Stubner

Spring, TX 77383

Waste Information

Name of Waste: Nonhazardous waste solids

TCEQ Waste Code #: CESQ3192

Container Type:

Detailed Description of Process Generating Waste:

Absorbent used to pick up latex paint from spills

Color: varies

Odor: none

pH: 4-8

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

standard PPE

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

CES Environmental Services, Inc.

CES Environmental Services, Inc.

4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676 Stream C

#1995

http://www.cesenvironmental.com TCEQ Industrial Solid Waste Permit No: 39048 U.S. EPA ID No: TXD008950461 ISWR No: 30900

Company:	erator Information				
company.	BaySystems North Am	ierica .			
Address:	2400 Spring Stubner				
City, State, Zip:	Spring, TX 77383				
Contact:	Danny Dove		Title:	Supervisor	_
Phone No:	281-350-9000		Fax No:	281-288-6450	
24/hr Phone:	281-350-9000				_
U.S. EPA I.D. No:			-		
State I.D.	CESQG		SIC Code:	14	
State MD1	CEDQU		_ SIC Couc.		
CECTION 4. DUI		41			
	ng Information – Same				
Company:	BaySystems North Amer	ica			
Address:	PO Box 1509		····		_
	Spring, TX 77383-1509				
Contact:	Accounts Payable	Title:			
Phone No:	281-350-9000	Fax No:	281-288-6450)	
	-				
SECTION 3: Gene	eral Description of the Wa	aste			r.
					// / ///
Name of Waste: N	Ion-Hazardous Waste Solid	S			#// 1
Detailed Description	on of Process Generating	Waste: Absorbent used	to pick up Later	Paint from spills.	1/17 . 103
•					M/
Physical State:	Liquid [] Sludge	Powder		,*
		Filter Cake			//
	⊠ Soliu _] Finer Cake _	_ Combinatio		11;
Colom Vonce	04	Nama			Nr.
Color: varies	Odor	: None			///
					1//
Specific Gravity (w	/ater=1): <u>1-1.5</u> I	ensity: 2 lbs/gal			
Layers:	Single-phase	Multi-phase			i. Ų
Layers:	Single-phase	Multi-phase			
Container Type:	Drum [Other (explain)	
Container Type:	Drum [
Container Type: Container Size:	Drum [Tote	Truck	Other (explain)	
Container Type: Container Size: Frequency:	Drum S5-	Tote Monthly	Truck		
Container Type: Container Size: Frequency: Number of Units (c	□ Weekly □	Tote Monthly Other:	Truck	Other (explain)	
Container Type: Container Size: Frequency:	Drum S Weekly containers): 6 dms	Tote Monthly Other:	Truck	Other (explain)	
Container Type: Container Size: Frequency: Number of Units (c	Drum Sis Weekly Containers): 6 dms Code No: CESQ3		Truck	Other (explain)	
Container Type: Container Size: Frequency: Number of Units (c	Drum Sis Weekly Containers): 6 dms Code No: CESQ3	Monthly S192 Non-RCRA, Non-DO	Truck	Other (explain)	
Container Type: Container Size: Frequency: Number of Units (c	Drum Sis Weekly Containers): 6 dms Code No: CESQ3		Truck	Other (explain) Vearly	
Container Type: Container Size: Frequency: Number of Units (c Texas State Waste Proper U.S. DOT S	Drum S5 Weekly Containers): 6 dms Code No: CESQ3 Shipping Name:	Monthly S192 Non-RCRA, Non-DO	Truck Quarterly T Regulated Wa	Other (explain) Vearly	
Container Type: Container Size: Frequency: Number of Units (c Texas State Waste Proper U.S. DOT S	Drum Sis Weekly Containers): 6 dms Code No: CESQ3 Shipping Name: UN/NA:	Monthly Signature Non-RCRA, Non-DO	Truck Quarterly T Regulated Wa	Other (explain) Vearly ste Solids RQ: Na	
Container Type: Container Size: Frequency: Number of Units (c Texas State Waste Proper U.S. DOT S	Drum S Weekly Containers): 6 dms Code No: CESQ Chipping Name: UN/NA:	Monthly Signature Sulfides	Truck Quarterly T Regulated Wa	Other (explain) Vearly ste Solids RQ: Na	
Container Type: Container Size: Frequency: Number of Units (c Texas State Waste Proper U.S. DOT S Class: Na	Drum Sis Weekly Containers): 6 dms Code No: CESQ3 Shipping Name: UN/NA:	Monthly Signature Sulfides	Truck Quarterly T Regulated Wa	Other (explain) Vearly ste Solids RQ: Na	
Container Type: Container Size: Frequency: Number of Units (c Texas State Waste Proper U.S. DOT S Class: Na	Drum S Weekly Containers): 6 dms Code No: CESQ Chipping Name: UN/NA:	Monthly Other: Non-RCRA, Non-DO Na active Sulfides	Quarterly T Regulated Wa PG: Na Reactive C	Other (explain) Vearly Selvas Na Vanides Selvas	
Container Type: Container Size: Frequency: Number of Units (c Texas State Waste Proper U.S. DOT S Class: Na Flash Point >200	Drum SS Weekly Containers): 6 dms Code No: CESQ2 Shipping Name: UN/NA:	Monthly Other: Non-RCRA, Non-DO Na ective Sulfides g/l Zinc	Quarterly T Regulated Wa PG: Na Reactive C	Other (explain) Vearly Sell As Jacoba	

1

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE	Concentration	Units
The waste consists of the following materials	llanges are neceptable	υ Γ%
Water	90-95	%
Absorbent	5-10	%
		——
		+

SECTION S: Sofety Reinted Data	•
If the handling of this waste requires the use of special protective equalities. Standard PPE	ipment, please explain.
SECTION 6: Attached Supporting Documents	
List all documents, notes, data, and/or analysis attached to this form	us buct of the muzie ubbrovul backuze
SECTION 7: Incompatibilities	
Please list an incompatibilities (if uny):	***************************************
SECTION 8: Generator's Knowledge Documentation	
Luboratory analytic of the hazardous waste churacteristics, listed believes at the howledge;	ow, WAS NOT PERFORMED based upon the following
TCLP Metals: X TCLP Volatiles: X TCLP Semi-Volatiles: X Reactivity: X Corrosivity: X Igaltability: X	
SECTION 9: Generator's Corribeation	
The information contained herein is based on \(\square\) generator knowledge of uttached description is complete and accurate to the best of my knowledge of composition properties exist and that all known or suspected tested are representative mult materials described by this document.	edge and ubility to determine that no deliberate or willful and hazards have been disclosed. I centify that the materials
Authorized Signature:	
Printed Name/Title: Dunny Dove/ Supervisor	******
CES USE ONLY (IND NOT WRITE IN THIS SPACE)	
Compliance Officer: Robbank Thun & Addin	tional Information:
Date: 1-5-07 (Approved) Rejected	NIA W
Approval Number: 1995	fany liquid, decentard send liquid
_	, , , , , , , , , , , , , , , , , , , ,
SECTION 10: Waste Receipt Classification (Index 40 CFR 437	
is this material a wastewater or wastewater aludge? 🔲 YES 💢 NO	

_

SECTION 4: Physical and Chemical Data

	Concentration Units
The waste consists of the following ma	terials Ranges are acceptable or % 90-95 %
Absorbent	5-10 %
SECTION 5: Safety Related Data	
If the handling of this waste requires the use of special None, Standard PPE	l protective equipment, please explain.
SECTION 6: Attached Supporting Documents	
List all documents, notes, data, and/or analysis attach MSDS Sheets on latex paints and constituents	ed to this form as part of the waste approval package.
SECTION 7: Incompatibilities	
Please list all incompatibilities (if any): None	
SECTION 8: Generator's Knowledge Documentation	<u>I</u>
Laboratory analysis of the hazardous waste characterigenerator knowledge:	istics, listed below, WAS NOT PERFORMED based upon the foll
TCLP Metals: X TCLP Volatiles: X TCLP Semi-Volatiles: X Reactivity: X Corrosivity: X Ignitability: X	
SECTION 9: Generator's Certification	
The information contained herein is based on 🗵 generat attached description is complete and accurate to the be	tor knowledge and/or analytical data. I hereby certify that the ab- est of my knowledge and ability to determine that no deliberate or nown or suspected hazards have been disclosed. I certify that the m document.
The information contained herein is based on \(\subseteq \text{generat} \) generat attached description is complete and accurate to the omissions of composition properties exist and that all kr tested are representative of all materials described by this	est of my knowledge and ability to determine that no deliberate or nown or suspected hazards have been disclosed. I certify that the m document.
The information contained herein is based on \(\subseteq \text{generat} \) generat attached description is complete and accurate to the be omissions of composition properties exist and that all kr tested are representative of all materials described by this \(\text{Authorized Signature:} \)	est of my knowledge and ability to determine that no deliberate or nown or suspected hazards have been disclosed. I certify that the m
The information contained herein is based on \(\subseteq \text{generat} \) generat attached description is complete and accurate to the be omissions of composition properties exist and that all kr tested are representative of all materials described by this \(\text{Authorized Signature:} \)	est of my knowledge and ability to determine that no deliberate or nown or suspected hazards have been disclosed. I certify that the m document. Date:
The information contained herein is based on \(\times \) generat attached description is complete and accurate to the be omissions of composition properties exist and that all kr tested are representative of all materials described by this \(\text{Authorized Signature:} \) Printed Name/Title: \(\text{Danny Dove/ Supervisor.} \)	est of my knowledge and ability to determine that no deliberate or nown or suspected hazards have been disclosed. I certify that the m document. Date:
The information contained herein is based on \(\sum \) generat attached description is complete and accurate to the be omissions of composition properties exist and that all kr tested are representative of all materials described by this \(\text{Authorized Signature:} \) Printed Name/Title: \(\text{Danny Dove/ Supervisor.} \) CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer:	est of my knowledge and ability to determine that no deliberate or nown or suspected hazards have been disclosed. I certify that the m document. Date:
The information contained herein is based on \(\sum \) generat attached description is complete and accurate to the be omissions of composition properties exist and that all kr tested are representative of all materials described by this \(\text{Authorized Signature:} \) Printed Name/Title: \(\text{Danny Dove/ Supervisor.} \) CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer:	est of my knowledge and ability to determine that no deliberate or nown or suspected hazards have been disclosed. I certify that the m document. Date: Additional Information:

PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.

Metal	ls Subcategory: Subpart A
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment
Oils S	ubcategory: Subpart B
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes
Organ	ics Subcategory: Subpart C
	Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources

- (1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
- (2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

Cadmium: 0.2 mg/L
Chromium: 8.9 mg/L
Copper: 4.9 mg/L
Nickel: 37.5 mg/L

(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.

| Metals Subcategory
| Oils Subcategory
| Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC:

(800) 424-9300

INTERNATIONAL: (703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone: Bayer Information Phone:

(412) 923-1800

(800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 7000 Tan

Material Number:

6689817

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Tan Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Harmful if inhaled. Harmful if swallowed. May affect nervous system. May cause kidney damage. May cause liver damage.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: Zinc Oxide

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

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For Component: Ethylene Glycol

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Inhalation of the glycol component is unlikely due to the low vapor pressure. If misted or handled at elevated temperatures, high concentrations can produce irritation and/or difficulty breathing. May cause nervous system effects which can include symptoms of dizziness, incoordination, headache, numbness, and/or confusion. May induce cardiac arrhythmia (irregular heartbeat) in some individuals.

For Component: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Silica

May be harmful by inhalation. May cause mechanical irritation.

Chronic Inhalation

For Component: Zinc Oxide

May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Ethylene Glycol

If sufficient amounts are absorbed, systemic toxicity may occur with symptoms similar to those described in acute inhalation. May cause slight irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

<u>Eye</u>

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Ethylene Glycol

May cause slight irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: <u>Limestone</u> Slightly toxic by ingestion.

Material Name: EVERCOAT 7000 Tan

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For Component: Titanium dioxide (Rutile)

Not expected to be harmful if swallowed.

For Component: Zinc Oxide

Not expected to be harmful if swallowed.

For Component: Ethylene Glycol

May be fatal if swallowed. Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea. May cause nervous system effects which can include symptoms of dizziness, incoordination, headache, numbness, and/or confusion.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

Chronic Ingestion

For Component: Ethylene Glycol

May cause blood disorders. May cause brain damage. May cause kidney damage. May cause liver damage. May cause lung damage.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath, coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1,3-Benzenedicarbonitrile, IA

IARC - Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: 1 Human carcinogen,

3. Composition/Information on Ingredients

Hazardous Components

		•••	
Weight %		Components	CAS-No.
7 - 13%		Limestone	1317-65-3
3 - 7%	_d	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	•	Zinc Oxide	1314-13-2
1 - 5%	_	Ethylene Glycol	107-21-1
0.1 - 1%		1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1106%		Crystalline Quartz Silica	14808-60-7

Material Name: EVERCOAT 7000 Tan Article Number: 6689817

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4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact-

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum:

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

Material Name: EVERCOAT 7000 Tan

Article Number: 6689817

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8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Zinc Oxide (1314-13-2)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 2 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 10 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Fume.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

Ethylene Glycol (107-21-1)

US. ACGIH Threshold Limit Values

Ceiling Limit Value: 100 mg/m3 (Aerosol.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Crystalline Quartz Silica (14808-60-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

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9. Physical and chemical properties

Form: Color:

liquid Tan

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable 17 mmHg @ 20 °C (68 °F) similar to water

Vapor Pressure: Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

28 Days, NOAEL: 14,470 ppm, (rat)

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Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg,

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Zinc Oxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 2,500 mg/m3, (mouse)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Non-irritating

Eve Irritation

rabbit, Draize, Slightly irritating

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Amivation: with/without)

Mouse lymphoma assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation:

with/without)

Toxicity Data for Ethylene Glycol

Acute Oral Toxicity

LD50: 4,700 mg/kg (Rat)

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Acute Inhalation Toxicity

LC50: > 200 mg/m3, 2 hrs (rat)

Acute dermal toxicity

LD50: 10,600 mg/kg (rabbit)

Skin Irritation

rabbit, Draize Test, Slightly irritating

Eve Irritation

rabbit, Draize Test, Slightly irritating

Repeated Dose Toxicity

16 Weeks, Inhalation: NOAEL: 3.49 mg/l, (Rat, Male/Female, daily)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without) Genetic Toxicity in Vivo:

Dominant Lethal Assay: negative (rat, male, oral)

Drosophila SLRL test: positive (Drosophila melanogaster,)

Micronucleus Assay: negative (mouse,)

Carcinogenicity

rat, oral, 2 years, daily Did not show carcinogenic effects in animal experiments. mouse, dermal, lifetime, daily negative

Toxicity to Reproduction/Fertility

Fertility Screening, oral, (mouse, Male/Female) NOAEL (parental): 2,500 mg/kg, NOAEL (F1): > 750 mg/kg,

No effects on Reproductive parameters observed at doses tested.

Three generation study, oral, daily, (rat) NOAEL (parental): > 1,000 mg/kg, NOAEL (F1): > 1,000 mg/kg, NOAEL (F2): > 1,000 mg/kg,

Developmental Toxicity/Teratogenicity

rabbit, female, dermal, NOAEL (teratogenicity): approximately 2,000 mg/kg, NOAEL (maternal): > 1,000 mg/kg,

Fetotoxicity has been observed in animal studies. Teratogenic effects have been observed in animal studies. Rat, female, oral, NOAEL (teratogenicity): < 500 mg/kg, NOAEL (maternal): 1,000 mg/kg,

Fetotoxicity has been observed in animal studies. Teratogenic effects have been observed in animal studies.

Toxicity Data for C.I. Pigment Yellow 42

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Non-irritating

Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Material Name: EVERCOAT 7000 Tan

Article Number: 6689817

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Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without) Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

Ecological Data for Ethylene Glycol

Biodegradation

Aerobic, > 40 %, Exposure time: 20 Days

Biological Oxygen Demand (BOD)

5 Days, 0.78 - 1.81 g/g

Chemical Oxygen Demand (COD)

1.19 - 1.29 g/g

Theoretical Biological Oxygen Demand (ThBOD)

1.26 - 1.29 g/g

Bioaccumulation

Golden orfe, Exposure time: 3 Days, 10 BCF

Acute and Prolonged Toxicity to Fish

41,000 mg/l (Coho salmon, silver salmon (Oncorhynchus kisutch), 96 hrs)

LC50: 49,000 - 57,000 mg/l (Fathead minnow (Pimephales promelas), 96 hrs)

LC50: 18,500 mg/l (Rainbow trout (Salmo gairdneri), 96 hrs)

Acute Toxicity to Aquatic Invertebrates

EC50: 46,300 - 57,600 mg/l (Water flea (Daphnia magna), 48 hrs)

EC50: 13,900 - 29,700 mg/l (Ceriodaphnia sp, 48 hrs)

Material Name: EVERCOAT 7000 Tan

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Toxicity to Aquatic Plants

EC50: 6,500 - 13,000 mg/l, End Point: growth (Green algae (Selenastrum capricornutum), 96 hrs)

Toxicity to Microorganisms

EC50: 10,000 mg/l, (Pseudomonas putida, 16 hrs)

EC50: 621 mg/l, (Photobacterium phosphoreum, 30 min)

Ecological Data for C.T. Pigment Yellow 42

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus))

Toxicity to Microorganisms

EC50: > 1,000 mg/l, (Pseudomonas putida)

13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

Zinc Oxide

Included in the regulation but with no data values. See regulation for

further details

Ethylene Glycol

Reportable quantity: 5,000 lbs

Material Name: EVERCOAT 7000 Tan

Article Number: 6689817

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SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

Zinc Oxide

Ethylene Glycol

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	CAS-No.
>=1%	Water	7732-18-5
>=1%	Acrylic Polymer	
7 - 13%	Limestone	1317-65-3
>=1%	Aluminum hydroxide	21645-51-2
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2
1 - 5%	Ethylene Glycol	107-21-1

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	Components	CAS-No.
1 - 5%	Zinc Oxide	1314-13-2
1 - 5%	Ethylene Glycol	107-21-1
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
<0.5%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6

Material Name: EVERCOAT 7000 Tan	 	Article	Nui	nber	: 6689817	
	 	 	-			

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tetrachloro-

< 0.5%

Crystalline Quartz Silica

<1 ppm

Formaldehyde

14808-60-7

50-00-0

16. Other Information

NFPA 704M Rating		
Health	1	
Flammability	1	
Reactivity	0	
Other		

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number:

000000005724 06/07/2006

Version Date: Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

Material Name: EVERCOAT 7000 Tan

Article Number: 6689817

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC: INTERNATIONAL:

(800) 424-9300

(703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone: Bayer Information Phone: (412) 923-1800

(800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 500QS WHITE

Material Number:

6663796

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Milky White Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Harmful if inhaled. Contains material which may cause cancer.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: Zinc Oxide

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

For Component: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

Material Name: EVERCOAT 500QS WHITE

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Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Silica

May be harmful by inhalation. May cause mechanical irritation.

Chronic Inhalation

For Component: Zinc Oxide

May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eve

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: <u>Titanium dioxide (Rutile)</u>

Not expected to be harmful if swallowed.

For Component: Zinc Oxide

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath,

Material Name: EVERCOAT 500QS WHITE

Article Number: 6663796

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coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1,3-Benzenedicarbonitrile,

IARC - Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: 1 Human carcinogen.

3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
20 - 30%	Limestone	1317-65-3
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Material Name: EVERCOAT 500QS WHITE

Article Number: 6663796

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Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum: 49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Zinc Oxide (1314-13-2)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 2 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 10 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) PEL: 5 mg/m3 (Fume.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) PEL: 5 mg/m3 (Respirable fraction.)

US. OSIIA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) PEL: 15 mg/m3 (Total dust.)

Crystalline Quartz Silica (14808-60-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

Material Name: EVERCOAT 500QS WHITE Article Number: 6663796

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US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. Physical and chemical properties

Form:

liquid

Color:

Milky White

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range: Flash Point:

100 °C (212 °F) similar to water Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

Upper Explosion Limit:

not applicable

Vapor Pressure:

not applicable 17 mmHg @ 20 °C (68 °F) similar to water

Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

Material Name: EVERCOAT 500QS WIIITE

Article Number: 6663796

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11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eve Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

28 Days, NOAEL: 14,470 ppm, (rat)

Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg,

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Material Name: EVERCOAT 500QS WIIITE

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Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Zinc Oxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 2,500 mg/m3, (mouse)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Non-irritating

Eve Irritation

rabbit, Draize, Slightly irritating

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Mouse lymphoma assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation:

with/without)

Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without) Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

Material Name: EVERCOAT 500QS WIIITE

Article Number: 6663796

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13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

Zinc Oxide

Included in the regulation but with no data values. See regulation for

further details

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

Zinc Oxide

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by

Material Name: EVERCOAT 500QS WIIITE

Article Number: 6663796

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characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	CAS-No.
>=1%	Water	7732-18-5
20 - 30%	Limestone	1317-65-3
>=1%	Acrylic Polymer	
>=1%	Aluminum hydroxide	21645-51-2
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	Components	CAS-No.
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	Ethylene Glycol	107-21-1
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Ammonium Hydroxide	1336-21-6

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7
<5 ppm	Formaldehyde	50-00-0
<20 ppm	Cadmium	7440-43-9

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic. - Developmental toxin. - Female reproductive toxin. - Male reproductive toxin.

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<5 ppm	Formaldehyde	50-00-0
<20 ppm	Lead	7439-92-1
<20 ppm	Cadmium	7440-43-9

16. Other Information

NFPA 704M Rating

TATE AND THE PERSON NAMED IN COLUMN		
Health	1	
Flammability	1	
Reactivity	0	
Other		

Material Name: EVERCOAT 500QS WIIITE	Article Number: 6663796	
P0610 P1712		

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0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835 000000005636

MSDS Number: Version Date:

06/07/2006

Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

Material Name: EVERCOAT 500QS WIIITE

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC:

(800) 424-9300

INTERNATIONAL:

(703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone: Bayer Information Phone: (412) 923-1800

(800) 662-2927

1. Product and Company Identification

Product Name: Material Number: **EVERCOAT 510**

Chemical Family:

6663826

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Gray Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fire-

exposed containers to minimize the risk of rupture.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Exposure:

Skin disorders, Respiratory disorders, Eye disorders

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

Material Name: EVERCOAT 510

Article Number: 6663826

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For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

Eye

Acute Eve

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: <u>Titanium dioxide (Rutile)</u>

Not expected to be harmful if swallowed.

Carcinogenicity:

No Carcinogenic substances as defined by IARC, NTP and/or OSHA

3. Composition/Information on Ingredients

Hazardous Components

Weight %

Components

CAS-No.

25 - 35%

Limestone

1317-65-3

1 - 5%

Titanium dioxide (Rutile)

13463-67-7

4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops,

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Material Name: EVERCOAT 510

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Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum: maximum: 1 °C (33.8 °F)

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Material Name: EVERCOAT 510

Article Number: 6663826

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Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. Physical and chemical properties

Form:

liquid

Color:

Gray

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable

Vapor Pressure:

17 mmHg @ 20 °C (68 °F) similar to water

Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

Material Name: EVERCOAT 510

Article Number: 6663826

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LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

28 Days, NOAEL: 14,470 ppm, (rat)

Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg,

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Titanium dioxide (rutile)

Acute Oral Toxicity

LD50: > 24,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 6820 mg/m3, 4 hrs (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Other assay: negative, Negative results were reported in various in vitro studies. (Bacillus subtilis)

Carcinogenicity

Rat, Male/Female, oral, 103 weeks, daily

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No carcinogenic effects observed at the doses tested.

mouse, Male/Female, oral, 103 days, daily

No carcinogenic effects observed at the doses tested.

Rat. Male/Female, inhalation.

Animal experiments showed a statistically significant number of tumours.

Toxicity to Reproduction/Fertility

Three generation study, oral, (Rat) NOAEL (parental): 5 mg/L (as Titanium),

Reproductive effects have been observed in animal studies.

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

Material Name: EVERCOAT 510

Article Number: 6663826

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15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

None

SARA Section 311/312 Hazard Categories:

Acute Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

None

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	CAS-No.
25 - 35%	Limestone	1317-65-3
>=1%	Water	7732-18-5
>=1%	Acrylic Polymer	
>=1%	Aluminum hydroxide	21645-51-2
1 - 5%	Titanium dioxide (Rutile)	13463-67-7
>=1%	Titanium dioxide (rutile)	1317-80-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	Components	CAS-No.
0.1 - 1%	Ethylene Glycol	107-21-1

Material Name: EVERCOAT 510 Article Number: 6663826

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0.1 - 1%

Ammonium Hydroxide

1336-21-6

MA Right to Know Extraordinarily Hazardous Substance List:

Components

<10 ppm

Ammonia

7664-41-7

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

Weight %

Components

CAS-No.

<1 ppm

Formaldehyde

50-00-0

16. Other Information

NFPA 704M Rating

Health	1
Flammability	1
Reactivity	0
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number:

00000005643

Version Date:

06/10/2006

Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

Material Name: EVERCOAT 510

Article Number: 6663826

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road

Pittsburgh, PA 15205-9741 USA TRANSPORTATION EMERGENCY

CALL CHEMTREC: INTERNATIONAL:

(800) 424-9300 (703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone: Bayer Information Phone: (412) 923-1800 (800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 800 TAN

Material Number:

6689833

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Tan Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Harmful if inhaled. Contains material which may cause cancer.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Sílica

Material Name: EVERCOAT 800 TAN

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May be harmful by inhalation. May cause mechanical irritation.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eve

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: Titanium dioxide (Rutile)

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath,

coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive

massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1,3-Benzenedicarbonitrile,

IARC-- Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: 1 Human carcinogen.

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
30 - 40%	Limestone	1317-65-3
5 - 10%	Titanium dioxide (Rutile)	13463-67-7
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

Material Name: EVERCOAT 800 TAN

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7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum:

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Crystalline Quartz Silica (14808-60-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

Material Name: EVERCOAT 800 TAN

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9. Physical and chemical properties

Form:

liquid

Color:

Tan

Odor:

Ammonia

pH: Freezing Point: 9 - 9.8

Boiling Point/Range:

0 °C (32 °F) similar to water 100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable 17 mmHg @ 20 °C (68 °F) similar to water

Vapor Pressure: Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

Material Name: EVERCOAT 800 TAN

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rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without) Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 pag/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

13. Disposal considerations

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

None

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III

Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	<u>Components</u>	_	CAS-No.
>=1%	Water		7732-18-5
30 - 40%	Limestone	RESERVE	1317-65-3
>=1%	Acrylic Polymer		
5 - 10%	Titanium dioxide (Rutile)		13463-67-7

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	<u>Components</u>	CAS-No.
0.1 - 1%	Ethylene Glycol	107-21-1
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

16. Other Information

NFPA 704M Rating

Health	1
Flammability	1
Reactivity	0
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. IIMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Material Name: EVERCOAT 800 TAN Article Number: 6689833

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^{* =} Chronic Health Hazard

Contact Person:

Product Safety Department

Telephone: MSDS Number:

(412) 777-2835 000000005660 06/07/2006

Version Date: Report Version:

1.2

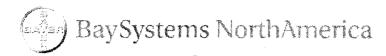
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Material Name: EVERCOAT 800 TAN

Article Number: 6689833

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MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC:

(800) 424-9300

INTERNATIONAL: (703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone:

(412) 923-1800

Bayer Information Phone:

(800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 700 NAVY GRAY

Material Number:

6689787

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Gray Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fireexposed containers to minimize the risk of rupture.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: Zinc Oxide

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

For Component: Crystalline Quartz Silica

May be harmful by inhalation. May cause mechanical irritation.

Material Name: EVERCOAT 700 NAVY GRAY

Article Number: 6689787

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Chronic Inhalation

For Component: Zinc Oxide

May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eye

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: <u>Titanium dioxide (Rutile)</u>

Not expected to be harmful if swallowed.

For Component: Zinc Oxide

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath, coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Material Name: EVERCOAT 700 NAVY GRAY Article Number: 6689787

Page: 2 of 9 Report Version: 1.2

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: 1 Human caremogen.

3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
30 - 40%	Limestone	1317-65-3
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Upersual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

Material Name: EVERCOAT 700 NAVY GRAY Article Number: 6689787

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6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum:

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Zinc Oxide (1314-13-2)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 2 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 10 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Fume.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

Crystalline Quartz Silica (14808-60-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Material Name: EVERCOAT 700 NAVY GRAY

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Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eve Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. Physical and chemical properties

Form:

liquid

Color:

Gray

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

Upper Explosion Limit:

not applicable not applicable

Vapor Pressure:

17 mmHg @ 20 °C (68 °F) similar to water

Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

Material Name: EVERCOAT 700 NAVY GRAY

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LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Zinc Oxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 2,500 mg/m3, (mouse)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Non-irritating

Eve Irritation

rabbit, Draize, Slightly irritating

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Mouse lymphoma assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation:

with/without)

Toxicity Data for Crystalline Quartz Silica

Material Name: EVERCOAT 700 NAVY GRAY Article Number: 6689787

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Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Material Name: EVERCOAT 700 NAVY GRAY

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Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

Zinc Oxide

Included in the regulation but with no data values. See regulation for

further details

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

Zinc Oxide

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	CAS-No.
30 - 40%	Limestone	1317-65-3
>=1%	Water	7732-18-5
>=] %	Acrylic Polymer	
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	Components	CAS-No.
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	Ethylene Glycol	107-21-1

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MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7
<5 ppm	Formaldehyde	50-00-0
<10 ppm	Cadmium	7440-43-9

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic. - Developmental toxin. - Female reproductive toxin. - Male reproductive toxin.

Weight %	Components	CAS-No.
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<5 ppm	Formaldehyde	50-00-0
<10 ppm	Lead	7439-92-1
<10 ppm	Cadmium	7440-43-9

16. Other Information

NFPA 704M Rating

Health	l
Flammability	1
Reactivity	0
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number:

000000005647

Version Date:

06/07/2006

Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road

Pittsburgh, PA 15205-9741

USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC: INTERNATIONAL:

(800) 424-9300

(703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone: Bayer Information Phone: (412) 923-1800

(800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 810 GRAY

Material Number:

6689841

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Gray Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fireexposed containers to minimize the risk of rupture. Harmful if inhaled. Contains material which may cause cancer.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Silica

Material Name: EVERCOAT 810 GRAY

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May be harmful by inhalation. May cause mechanical irritation.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

<u>Eye</u>

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: Titanium dioxide (Rutile)

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath,

coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive

massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1_3-Benzenedicarbonitrile,

IARC - Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: 1 Human carcinogen.

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3. Composition/Information on Ingredients

Hazardous Components

Weight %	Components	CAS-No.
15 - 25%	Limestone	1317-65-3
1 - 5%	Titanium dioxide (Rutile)	13463-67-7
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

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7. Handling and Storage

Storage Temperature:

minimum: maximum: 1 °C (33.8 °F) 49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Crystalline Quartz Silica (14808-60-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

Material Name: EVERCOAT 810 GRAY

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9. Physical and chemical properties

Form:

liquid

Color: Odor:

Gray Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable

Vapor Pressure:

17 mmHg @ 20 °C (68 °F) similar to water

Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eve Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

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28 Days, NOAEL: 14,470 ppm, (rat)

Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg,

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Titanium dioxide (rutile)

Acute Oral Toxicity

LD50: > 24,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 6820 mg/m3, 4 hrs (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Other assay: negative, Negative results were reported in various in vitro studies. (Bacillus subtilis)

Carcinogenicity

Rat, Male/Female, oral, 103 weeks, daily

No carcinogenic effects observed at the doses tested.

mouse, Male/Female, oral, 103 days, daily

No carcinogenic effects observed at the dosestested.

Rat, Male/Female, inhalation,

Animal experiments showed a statistically_significant number of tumours.

Toxicity to Reproduction/Fertility

Three generation study, oral, (Rat) NOAEL (parental): 5 mg/L (as Titanium),

Reproductive effects have been observed in animal studies.

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Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without) Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EC0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Material Name: EVERCOAT 810 GRAY

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Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

None

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required: Components

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	<u>Components</u>		CAS-No.
>=1%	Water		7732-18-5
>=1%	Acrylic Polymer		
15 - 25%	Limestone	d	1317-65-3
>=1%	Aluminum hydroxide		21645-51-2
1 - 5%	Titanium dioxide (Rutile)	_	13463-67-7
>=1%	Titanium dioxide (rutile)	_	1317-80-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

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Weight % Components Ethylene Glycol 0.1 - 1% 0.1 - 1% 1,3-Benzenedicarbonitrile, 2,4,5,6-1897-45-6

tetrachloro-

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

16. Other Information

NFPA 704M Rating

Health	1
Flammability	1
Reactivity	0
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number:

00000005662 --

Version Date:

06/07/2006

Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

Material Name: EVERCOAT 810 GRAY

Article Number: 6689841

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^{* =} Chronic Health Hazard

MATERIAL SAFETY DATA SHEET



Baysystems North America Product Safety & Regulatory Affairs 100 Bayer Road Pittsburgh, PA 15205-9741 USA TRANSPORTATION EMERGENCY

CALL CHEMTREC: INTERNATIONAL:

(800) 424-9300

(703) 527-3887

NON-TRANSPORTATION

Bayer Emergency Phone:

(412) 923-1800

Bayer Information Phone:

(800) 662-2927

1. Product and Company Identification

Product Name:

EVERCOAT 500 GRAY

Material Number:

6689728

Chemical Family:

Water-based Acrylic Coating

2. Hazards Identification

Emergency Overview

WARNING! Color: Gray Form: liquid Odor: Ammonia.

May cause eye, skin, and respiratory tract irritation. Use cold water spray to cool fireexposed containers to minimize the risk of rupture. Harmful if inhaled. Contains material which may cause cancer.

Potential Health Effects

Primary Routes of Entry:

Skin Contact, Eye Contact, Ingestion, Inhalation

Medical Conditions Aggravated by

Skin disorders, Respiratory disorders, Eye disorders

Exposure:

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Limestone

Causes respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

May cause mechanical irritation.

For Component: Zinc Oxide

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

For Component: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

Material Name: EVERCOAT 500 GRAY Article Number: 6689728

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Expected to be highly toxic by inhalation.

For Component: Crystalline Quartz Silica

May be harmful by inhalation. May cause mechanical irritation.

Chronic Inhalation

For Component: Zinc Oxide

May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.

Skin

Acute Skin

For Component: Limestone

Causes irritation with symptoms of reddening, itching, and swelling. May cause mechanical irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Eve

Acute Eye

For Component: Limestone

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause mechanical

irritation.

For Component: Titanium dioxide (Rutile)

Not expected to be irritating.

For Component: Zinc Oxide

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Limestone

Slightly toxic by ingestion.

For Component: <u>Titanium dioxide (Rutile)</u>

Not expected to be harmful if swallowed.

For Component: Zinc Oxide

Not expected to be harmful if swallowed.

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath,

Material Name: EVERCOAT 500 GRAY

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coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

1,3-Benzenedicarbonitrile,

IARC - Overall evaluation: 2B Possible carcinogen.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

IARC - Overall evaluation: 1 Human carcinogen.

3. Composition/Information on Ingredients

Hazardous Components

Weight %	<u>Components</u>	CAS-No.
20 - 30%	Limestone	1317-65-3
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

4. First Aid Measures

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

All extinguishing media are suitable.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

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Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

6. Accidental release measures

Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

7. Handling and Storage

Storage Temperature:

minimum:

1 °C (33.8 °F)

maximum:

49 °C (120.2 °F)

Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

Further Info on Storage Conditions

None known.

8. Exposure Controls / Personal Protection

Titanium dioxide (Rutile) (13463-67-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

US. ACGIII Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

Zinc Oxide (1314-13-2)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 2 mg/m3 (Respirable fraction.)

US. ACGIII Threshold Limit Values

Short Term Exposure Limit (STEL): 10 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Fume.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m3 (Respirable fraction.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m3 (Total dust.)

Crystalline Quartz Silica (14808-60-7)

US. ACGIII Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m3 (Respirable fraction.)

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US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand Protection

Permeation resistant gloves.

Eye Protection

splash proof goggles.

Skin and body protection

Wear cloth work clothing including long pants and long-sleeved shirts.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

9. Physical and chemical properties

Form:

liquid

Color:

Gray

Odor:

Ammonia

pH:

9 - 9.8

Freezing Point:

0 °C (32 °F) similar to water

Boiling Point/Range:

100 °C (212 °F) similar to water

Flash Point:

Not applicable (water based product), however, solid material will

support combustion if water has been evaporated.

Lower Explosion Limit:

not applicable

Upper Explosion Limit:

not applicable

Vapor Pressure:

17 mmHg @ 20 °C (68 °F) similar to water

Specific Gravity:

1.3 - 1.5

Viscosity, Dynamic:

10,000 cP

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

By Thermal Decomposition: Acrylic monomers, other potentially toxic fumes

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11. Toxicological Information

Toxicity Data for Limestone

Acute Oral Toxicity

LD50: 6,450 mg/kg (Rat)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Moderately irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 hrs, Severely irritating

Toxicity Data for Aluminum hydroxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, No eye irritation

Repeated Dose Toxicity

28 Days, NOAEL: 14,470 ppm, (rat)

Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg,

No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

Toxicity Data for Titanium dioxide (Rutile)

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC0: > 6.82 mg/l, dust/particulate, 4 hrs (Rat)

Acute dermal toxicity

LD50: > 5,000 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 hrs, Non-irritating

Eye Irritation

rabbit, Draize, Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Repeated Dose Toxicity

28 Days, inhalation: NOAEL: 35 mg/m3, (Rat)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

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Drosophila SLRL test: negative (Drosophila melanogaster)

Toxicity Data for Zinc Oxide

Acute Oral Toxicity

LD50: > 5,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: 2,500 mg/m3, (mouse)

Skin Irritation

rabbit, Draize, Exposure Time: 24 hrs, Non-irritating

Eve Irritation

rabbit, Draize, Slightly irritating

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Mouse lymphoma assay: positive (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation:

with/without)

Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without) Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week positive

12. Ecological Information

Ecological Data for Limestone

Biodegradation

Not readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hrs)

Ecological Data for Titanium dioxide (Rutile)

Acute and Prolonged Toxicity to Fish

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 hrs)

Acute Toxicity to Aquatic Invertebrates

EÇ0: > 3 mg/l (Water flea (Daphnia magna))

Toxicity to Microorganisms

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 hrs)

EC0: > 5,000 mg/l, (Escherichia coli)

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13. Disposal considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

14. Transportation information

Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating:

Hazardous

US. Toxic Substances Control Act:

Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

Zinc Oxide

Included in the regulation but with no data values. See regulation for

further details

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components

None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

Components

Zinc Oxide

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by

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characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Weight %	Components	CAS-No.
>=1%	Water	7732-18-5
20 - 30%	Limestone	1317-65-3
>=1%	Acrylic Polymer	
>=1%	Aluminum hydroxide	21645-51-2
3 - 7%	Titanium dioxide (Rutile)	13463-67-7
1 - 5%	Zinc Oxide	1314-13-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Weight %	<u>Components</u>	CAS-No.
1 - 5%	Zinc Oxide	1314-13-2
0.1 - 1%	Ethylene Glycol	107-21-1
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-	1897-45-6
	tetrachloro-	
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<0.1%	Ammonia	7664-41-7
<5 ppm	Formaldehyde	50-00-0

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic. - Developmental toxin. - Female reproductive toxin. - Male reproductive toxin.

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Weight %	Components	CAS-No.
0.1 - 1%	1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7
<5 ppm	Formaldehyde	50-00-0
<1 ppm	Lead	7439-92-1
<1 ppm	Cadmium	7440-43-9

16. Other Information

NFPA 704M Rating

Health	1	
Flammability	I	
Reactivity -	- 0	٦
Other		

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

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HMIS Rating

CONTRACT

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

* = Chronic Health Hazard

The method of hazard communication for Baysystems North America is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Baysystems North America as a customer service.

Contact Person:

Product Safety Department

Telephone:

(412) 777-2835

MSDS Number: Version Date: 00000005639 06/07/2006

Report Version:

1.2

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Baysystems North America. The information in this MSDS relates only to the specific material designated herein. Baysystems North America assumes no legal responsibility for use of or reliance upon the information in this MSDS.

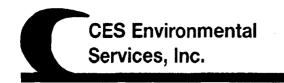
Material Name: EVERCOAT 500 GRAY

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1996 Millsay vetterprooping 1996

EPAHO105001884



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/8/2007

Dear Jack

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1996

Generator: Millsap Waterproffing

Address: 2414 McAllister

Houston, TX 77092

Waste Information

Name of Waste: Recyclable hydrocarbon and water mixture

TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

Hydrocarbon washed off concrete in a parking garage prior to coating

Color: varies

Odor: slight hydrocarbon pH: 5-8

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



4904 Griggs Road Phone: (713) 676-1460

Houston, TN 77021 Fax: (713) 676-1676

http://www.cesenvironmentul.com TCEQ Industrial Solid Waste Permit No: 39048 U.S. EPA ID No: TXD908950461 ISWR No: 30900

#	19	96
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SECTION 1: Gene Company:					
	Milson Watermel	Mill<4F	, \\\√\	ERPROOFING	<u>e</u> ,
Address:	2414 McAllister	- 111 113 11			
City, State, Zia:	Houston, TX 7709	17			
Confects	Jack	<u>'</u>	Title:	Supervisor	
Phone Na:	713-956-6077		Fas No:	713-956-5131	
24/hr Phone:	713-956-6677			113,4%,6131	
U.S. EPA I.D. No:	TXCESOG		-		
State LD.	CESOG		SIC Codes	N.A	
SIAM CD.	Crayor		" \$1C C48U		
SECTION 2: BUILD	e Informetien – 🛭 :	Same as Abusy			
Company:					
Address:					
City. State, Zip:					
Contact:	Acel Payable	Title:			
Phone No:	Johnnie Greenwalt	For No:	Same		
·					
SECTION 3: Gane	ral Description of th	e Waste			
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	ecyclable Hydrocarbos				
Detailed Description	n of Process General	ing Waste: <u>Hydrocarbods w</u>	mshed off conv	rete in a parking garage or	for to coating
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Color: Vuries	44		Combination	NA .	
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Specific Gravity (w Layers: Container Type: Container Size:	ofter=!}: i Single-phase Draw S5	Filter Cake	Combinate	Other (expli	lin)
Specific Gravity (w Layers: Container Type: Container Size: Frequency:	ofer=!): 1 Single-phase Drawn S5	Filter Cake	Combinate	Other (expli	lin)
Specific Gravity (or J. 29072); Container Type: Container Size: Frequency; Number of Units (co	ofter=!): 1 Single-phase Dram S5 Weekly Ontsiners): 2	Filter Cake	Combinate	Other (expli	lin)
Specific Gravity (w Layers: Container Type: Container Size: Frequency:	ofter=!): 1 Single-phase Dram S5 Weekly Ontsiners): 2	Filter Cake	Combinate	Other (expli	lin)
Specific Gravity (w J.ayers; Container Type; Container Size; Frequency; Number of Units (c Texas State Woole)	ofter=1): 1 Single-phase Dram 55 Weekly Ontainers): 2 Code No: Re	Filter Cake	Truck Quarterly	Other sexple	lin)
Specific Gravity (w J.ayers; Container Type: Container Size: Frequency; Number of Units (c Texas State Woste (Proper U.S. DOT S	pter=1): 1 Simple-phase State S	Filter Cake	Combinate Truck Quarterly	Other sexpli	lin)
Specific Gravity (w J.ayers; Container Type; Container Size; Frequency; Number of Units (c Texas State Woole)	ofter=1): 1 Single-phase Dram 55 Weekly Ontainers): 2 Code No: Re	Filter Cake	Truck Quarterly	Other sexpli	lin)
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Specific Gravity (w Layers; Container Type: Container Size: Frequency: Number of Units (c) Texas State Waste (Proper ('.S. DOT S) Class: Nu	pter=1): 1 Simple-phase State S	Filter Cake	Truck Quarterly PG: No	Other feating Yearly Noture	Na Na
Specific Gravity (w Layers; Container Type: Container Size: Frequency: Number of Units (c) Texas State Waste (Proper P.S. DOT S Class: Nu Flush Point	pfer=1): 1 Simple-phase	Filter Cake	Combinate Truck Quarterly	Other feating Yearly Noture	Na Na
Specific Gravity (w [.ayers; Container Type: Container Size: Frequency; Number of Units (c) Texas State World (Proper I'.S. DOT S) Class: Nu Flood Point >200	afer=1): 1 Single-phase Draw S5 Weekly code No: Re hipping Name: UN/N/	Filter Cake	Truck Quarterly PG: No	Other seaple Venely Vanides Solids 0.5%	lint
Specific Gravity (w Layers; Container Type: Container Size: Frequency: Number of Units (c) Texas State Waste (Proper P.S. DOT S Class: Nu Flush Point	pfer=1): 1 Simple-phase	Filter Cake	Combinate Truck Quarterly PG: Na Reserve C	Other sexpli Venely RQ:	Na Na

SECTION 4: Physical and Chemical Data

CUMPONENTS TABLE	Concentration	ligits or %	
The waste consists of the following materials	Kanges are acceptable		
Water	93-95	%	
Scrubber Sludge	2-6	26	
Debris (Sand. Din., etc.)	0-5	%	
		↓	
		i	

l. '					
Scrubber Sludge		2-6	%		
Debris (Sand. Dirt, etc.)	0-5	%		
SECTION 5: Sufer: Re	lased Data				
	wate requires the use of special protecti	ive equipment, picase explain.			
SECTION 6: Ameched	Supporting Documents				
Nanc Nanc	r' duin' badior unspizie busches to this	form as part of the waste approval	iockogę	• -	
SECTION 7: Incompa	Iblitica				
Please flat all incompati None	bilities (if any):		· · · · · · · · · · · · · · · · · · ·		
SECTION 8: Generate	r's Knowledge Dacumentation		•		4
Laboratory analysis of generator knowledge;	ke kazardowa waste characteristica, lia	led below, WAS NOT PERFORATE	based upon the follow	gnis	
TCLP Metake TCLP Volatiles: TCLP Semi-Volatiles: Heactivity: Corresivity: Ignitability:	X X X X				
SECTION 9: Generate	r's Certification				
attached description is composition	d herein is hased in 🔀 generator knowled omplete and occurate to the hest of my n properties exist and that all known or s of all materiuls designified by this documen	knowledge and ubility in determine suspected hazards have been disclosed it.	that no deliberate or v l. I certify that the man	riPful	
Authorized Signalure:	fork I horse	Daw: 101	104 /OF		
Princed Name/Thie:	Jack MoonE,	PROJECT MANA	184/87 GER	•••	
CES USE ONLY (BU NOT W	RITE IN THIS SPACE;			7	
Compliance Officer	wayen	Additional Information:			
Dale: 1-5-0	Approved Rejected	KEC			
Approval Number:	1992				

SECTION 10:	Watte Reteint	Classifies tion	Coder 40	CFR 437

In this material a wastewater or wastewater sludge? 🛛 YES □ NO

71374BB564

CES Environmental Svcs.

If 'Yes', complete this section.

PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.

Metals Subcategory: Subpart A Spent electroplating buths and/or sludges Metal finishing rinse water and sludges Chromete wastes Air pullution control blow down water and sludges Spent anodizing solutions incinention wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Weste ucids and bases with an without metals Cleaning, running, and surface preparation solutions from electropleting or phosphating operations Vibratory dehunting wastewater Alkaline and acid solutions used to clean metal parts or equipment Oils Substanceory: Subpart B Used oils Oil-water emulsions or mixtures Lubricanis Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Rilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground stotage remediation waste Tank clean-out from permitten or oily sources Non-contact used given is Aqueous and oil mixtures from parts cleaning operations Wassewater from oil bearing parts washes Organics Subcotegory: Subpart C Landfill leachere Contominated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still buttoms Byproduct waste giveni Wastewater from point withhes Wastewater from adhesives und/or opnoises formulation Wastewater from organic chemical product operations

Tank clean-out from organic, non-perioleum sources

- (1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
- If the waste contains oil and grease less than 100 mg/l,, and has any of the polluturis listed below in concernations in excess of the values listed below, the water should be classified in the metals subcategory.

SECTION 11: Additional Instructions

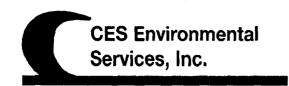
Oils Subentegory

Organics Subcategory

◪

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium. Chromium. Copper. Nicket, and Oil and Greuse. CES will send offsite to a commercial laboratory a sample to determine these concentrations. Thus will be prior to acceptance. The generator will be responsible for the cost of the analysis.

TOTAL P.05



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/8/2007

Dear Danny Dove

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1991

Generator: BaySystems North America

Address: 2400 Spring Stubner

Spring, TX 77383

Waste Information

Name of Waste: Nonhazardous off-spec grease

TCEQ Waste Code #: CESQ3191

Container Type:

Detailed Description of Process Generating Waste:

Unused P-60 grease, dirt, dust, debris and rainwater contamination

Color: black

Odor: none

pH: na

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

1991



4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 39048
U.S. EPA ID No: TXD008950461 ISWR No: 30900

20

Stream 1

SECTION 1: Gene	rator Information				
Company:	BaySystems North	n America	-		
Address:	2400 Spring Stubr	ner			
City, State, Zip:	Spring, TX 77383				
Contact:	Danny Dove		Title:	Supervisor	
Phone No:	281-350-9000		Fax No:	281-288-6450	
24/hr Phone:	281-350-9000				
U.S. EPA I.D. No:	TXCESOG			Δ.	
State I.D.	CESQG		SIC Code:	ΛIA	
State LD.	CLSQU		SIC Code.	101.	
SECTION 2: Billin	g Information – 🗍 :	Same as Above			
Company:	BaySystems North A				
Address:	PO Box 1509				
City, State, Zip:	Spring, TX 77383-1:	509			
Contact:	Accounts Payable	Title:			
Phone No:	281-350-9000	Fax No:	281-288-6450	`	
Phone No:	201-330-9000	rax no:	201-200-043()	 ,
SECTION 3: Gene	ral Description of th	e Waste			m
	on-Hazardous Off-Spe n of Process General		rease, dirt, dust, o	lebris and rain water contamina	N/
Physical State:	⊠ Liquid	⊠ Sludge	Powder		# 1 1 //
K E-T-1-E-T-1-1-1	Solid	Filter Cake			
	△ Soliu	Filler Cake	Combinano		H)
Color: Black		Odor: None			* // // // // // // // // // // // // //
Specific Gravity (w	nter=1): <u>1-1.5</u>	Density: 2 lbs/gal			J
Layers:	Single-phase	Multi-phase			
Container Tyne:	Drum	☐ Tote ☐	Truck	Other (explain)	1.2
Container Size:			T " W. Z. Z. Z	Marie Zerkinin -	
Container Size:	<u>55</u>				``
Frequency:	Weekly	Monthly 2	Quarterly	☐ Yearly	
Number of Units (co		Other:	-L _ A C - D - D - D - D - D - D - D - D - D -		
	/		•		"/
Texas State Waste (Code No: Ci	ESQ3191			
Proper U.S. DOT SI	nipping Name:	Non-RCRA, Non-Do	OT Regulated Wa	aste Solids	
Class: Na	UN/N	A: Na	PG: Na	RQ: Na	<u> </u>
			- :		
		r -			
Flash Point	рH	Reactive Sulfides	Reactive C		(
<u>>200</u>	<u>Na</u>	<u>0</u> mg/l	<u>0</u> mg/l	75-95%	
Oil&Grease	TOC	Zinc	Copper	Nickel	+
Nome/I	Nome/I	NIA-mar/I	No-mar/I	Nome/I	1 \

SECTION 4: Physical and Chemical Data

The second secon	Collegativition	Units
The waste consists of the following materials	Ranges are acceptable 75-95	0r %
P-60 Greate (Unused)	75-95 0-1	1/0
Dust, Din Water	4-25	%
4/3(8)	4-29	70
		
		
		·
SECTION 5: Safety Related Data	_	
If the handling of this waste requires the use of special protective equ	inmeat player explain	
None Stundard SPE	Shuenet brease exhinent	
SECTION 6: Attached Supporting Dockments		
List uli dotamenta notes, data, and/or analysia anached to this form a MSDS Sheets	ra Boli oj ipë mhqe Abbloksi byckul	ge
SECTION 7: Incomparibilities		
Please llst all incompatibilities (if any); None		
SECTION 8: Gravestor's Knowledge Decumentation		
Laboratory analysis of the bazardous waste characteristics, listed belo	W BAG NAT DEPENDATE have	d sman the Cilian law
renerator knowledge:	A MAN WAS LACK TO THE PROPERTY OF THE PROPERTY	n nitan inc tationalis
generator Minarities.		
I'CLP Metals: X		
I'CLP Metals: X FGLP Volarites: X FCLP Seni-Volatiles: X Reactivity: X		
I'CLP Metals: X		
ICLP Metals: CCLP Metals: X CCLP Semi-Volatiles: X Reactivity: X Corrosivity: X goitability: X Corrosivity: X goitability: X Continuation contained herein is based on X generator knowledge an inached description is complete and accurate to the best of my knowledge an inached description is complete and accurate to the best of my knowledge an inached description of competition properties exist and that all known or suspected are representative of all materials described by this document.	dge and ability to determine that no d hazards have been disclosed. I con	n deliberate or willfunify that the materials
ICLP Metals: CCLP Metals: X CCLP Semi-Volatiles: X Reactivity: X Corrosivity: X goitability: X Corrosivity: X goitability: X Continuation contained herein is based on X generator knowledge an inached description is complete and accurate to the best of my knowledge an inached description is complete and accurate to the best of my knowledge an inached description of competition properties exist and that all known or suspected are representative of all materials described by this document.	idae and shility to determine that a	n deliberate or willfurify that the materials
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I'CLP Metals: FCLP Volarites: Kenetivity: X Corrosivity: X goitability: X GECTION 9: Generalar's Cortification The information contained herein is based on Senerator knowledge an inteched description is complete and accurate to the best of my knowledge in the content of the composition properties exist and that all known or suspected are representative of all materials described by this document.	dge and ability to determine that no d hazards have been disclosed. I con	n deliberate or willfurify that the materials
I'CLP Metals: FCLP Volarites: Kenetivity: X Corrosivity: X goitability: X GECTION 9: Generalar's Cortification The information contained herein is based on Senerator knowledge an inteched description is complete and accurate to the best of my knowledge in the content of the composition properties exist and that all known or suspected are representative of all materials described by this document.	dge and ability to determine that no d hazards have been disclosed. I con	n deliberate or willfurify that the materials
I'CLP Metalis: CCLP Send-Volatiles: X Reactivity: X Corrosivity: X goitability: X SECTION 9: Generator's Cortification The information contained herein is based on generator knowledge an inteched description is complete and accurate to the best of my knowle missions of composition properties exist and that all known or suspected are representative of all materials described by this document. Authorized Signature: Printed Name/Title: Danny Dove/ Supervisor REUSE ONLY (DO NOT WRITE IN TRIS SPACE)	dge and ability to determine that no d hazards have been disclosed. I con	n deliberate or willfurify that the materials
I'CLP Metais: CCLP Volatiles: X	dge and ability to determine that not determine the notation of determine that not determine the notation of the notation that not determine the not	n deliberate or willfurify that the materials
I'CLP Metalis: CCLP Send-Volatiles: X Reactivity: X Corrosivity: X goitability: X SECTION 9: Generator's Cortification The information contained herein is based on generator knowledge an inteched description is complete and accurate to the best of my knowle missions of composition properties exist and that all known or suspected are representative of all materials described by this document. Authorized Signature: Printed Name/Title: Danny Dove/ Supervisor REUSE ONLY (DO NOT WRITE IN TRIS SPACE)	dge and ability to determine that no d hazards have been disclosed. I co	n deliberate or willfurify that the materials

SECTION 10: Waste Receipt Cin	ssification Under 40 CFR 437
-------------------------------	------------------------------

Is this material a wastewater or wastewater studge?

YES

NO

z

Metals Subcategory: Subpart A

PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.

П	Spent electroplating baths and/or sludges
Ħ	Metal finishing rinse water and sludges
Ħ	Chromate wastes
	Air pollution control blow down water and sludges
Ħ	Spent anodizing solutions
Ħ	Incineration wastewaters
Ħ	Waste liquid mercury
Ħ	Cyanide-containing wastes greater than 136 mg/l
	Waste acids and bases with or without metals:
Ħ	Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations
Ħ	Vibratory deburring wastewater
Ħ	Alkaline and acid solutions used to clean metal parts or equipment
	Alkaline and acid soldions used to clean metal parts of equipment
Oils .	Subcategory: Subpart B
	Used oils
	Oil-water emulsions or mixtures
	Lubricants
	Coolants
	Contaminated groundwater clean-up from petroleum sources
	Used petroleum products
	Oil spill clean-up
	Bilge water
	Rinse/wash waters from petroleum sources
5	Interceptor wastes
	Off-specification fuels
Ī	Underground storage remediation waste
5	Tank clean-out from petroleum or oily sources
7	Non-contact used glycols
_	Aqueous and oil mixtures from parts cleaning operations
Ī	Wastewater from oil bearing paint washes
	•
)rga	nics Subcategory: Subpart C
_	
╛	Landfill leachate
ᆜ	Contaminated groundwater clean-up from non-petroleum sources
	Solvent-bearing wastes
	Off-specification organic product
4	Still bottoms
╛	Byproduct waste glycol
╛	Wastewater from paint washes
╝	Wastewater from adhesives and/or epoxies formulation
_	Wastewater from organic chemical product operations
J	Tank clean-out from organic, non-petroleum sources

- (1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
- 2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

Cadmium: 0.2 mg/L
Chromium: 8.9 mg/L
Copper: 4.9 mg/L
Nickel: 37.5 mg/L

(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.

☐ Metals Subcategory
☐ Oils Subcategory
☐ Organics Subcategory
☐ Organics Subcategory
☐ Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY INFORMATION

Network Compounds Incorporated 4025 Willowbend Blvd., Suite 302 Houston, TX 77025 USA 713/461-3800

PRODUCT TRADE NAME:

 (ATG_{TM}) P-60

CAS NO:

Not applicable for mixtures.

SYNONYMS:

Dielectric petroleum jelly

GENERIC/CHEMICAL NAME:

Mixture.

PRODUCT TYPE:

Cable filling/flooding compound.

PREPARATION/REVISION DATE:

Jan. 5: 1999

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

This product contains no components that are considered to be hazardous or harmful when used in the normal recommended manner. This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

NO specific warnings for normal use or conditions.

· POTENTIAL HEALTH EFFECTS

Eyes: Contact with the eye may cause irritation.

Skin: Prolonged or repeated contact may cause irritation. . .

Inhalation: Inhalation is not an anticipated route of exposure.

Ingestion: Ingestion is not an anticipated route of exposure.

Chronic: No anticipated chronic effects.

REGULATED CARCINOGEN STATUS:

This product does not contain regulated levels of NTP, IARC, ACGIH, or OSHA listed carcinogens.

SECTION 4 - FIRST AID MEASURES

INGESTION: Do not indece vomiting. Give large quantities of water or milk. Get medical attention if necessary.

EYE: Flush with water untill foreign matter is irrigated. Consult a physician if irritation persist.

SKIN: Wash with soap and water. Consult physician if irritation persist.

ADDITIONAL: Note to physician: Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT (Typical): 600 Dag F PMCC

UPPER EXPLOSIVE LIMIT/LOWER EXPLOSIVE LIMIT: Not Applicable.

AUTOIGNTTION TEMPERATURE: Not Applicable.

EXTINGUISHING MEDIA: CO2, Dry chemical or water.

SPECIAL FIREFIGHTING PROCEDURES: Recommend standard fire fighting equipment, Product contains no

known Unusual Fire or Explosion hazards.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES: Wipe of pick up material.

ma, a engly better Affalla, y **195**

SECTION 7 - HANDLING AND STORAGE

HANDLING PROCEDURES: Keep containers closed when not in use. Wash with soap and water or hand cleaner after handling. Empty containers may retain material residue. Do not expose containers to heat, flame, or other sources of ignition

STORAGE PROCEDURES: Do not store near potential sources of heat

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION PROCEDURE: Ventilation measures not required under normal use.

HAND PROTECTION: Gloves not necessary under normal use.

EYE PROTECTION: Safety glasses should be adequate protection under normal use.

RESPIRATORY PROTECTION: Not normally required under normal use.

SKIN PROTECTION: Avoid prolonged and/or repeated skin contact. After contact, wash hands/exposed skin with

soap and water. .

CLOTHING RECOMMENDATION: No specific clothing needed under normal use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE:

Not established

APPEARANCE: ODOR:

Light brown Slight petroleum."

ODOR THRESHOLD:

Not established.

SPECIFIC GRAVITY:

0.98 g/cc

MOLECULAR WEIGHT: Not established.

VAPOR DENSITY:

Not established.

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: Material is stable.

POLYMERIZATION: Will not occur.

THERMAL DECOMPOSITION: Produces smoke, carbon monoxide, and other products of hydrocarbon combustion.

SECTION 11 - TOXICOLOGICAL INFORMATION

No data available.

SECTION 12 - ECOLOGICAL INFORMATION

No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

This product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14 - TRANSPORT INFORMATION

U.S. DOT Proper shipping name: Not Regulated.

International Transportation

IATA Proper Shipping name: Not Regulated.

SECTION 15 - REGULATORY INFORMATION

FEDERAL.

Toxic Substance Control Act (TSCA)

Section 8(b) - Inventory Status

This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

Section 313: This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372.

SECTION 16 - OTHER INFORMATION

During normal use the material will not present an exposure risk.

HMIS Rating

Health: l

Fire: 0

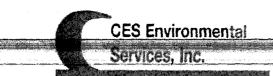
Reactivity: 0

REVISION INDICATORS:

- Supersedes 06-01-97

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Waterguard Telecommunication Technologies knowledge; however, Waterguard Telecommunication Technologies makes no warranty regarding the accuracy of such data or the results to be obtained from the use thereof. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons Waterguard Telecommunication Technologies assumes no responsibility for injury or damage to any property. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, Waterguard Telecommunication Technologies cannot guarantee that these are the only hazards that exist. It is the responsibility of the user to comply with all applicable Federal, State, and Local Laws and Regulations.





Housian, IX //U21 Tel. (713) 676-1460 Fax. (713) 676-1676

Waste Profile Re-Certification Form

CES Waste Approval #:

HOU-1986

Customer:

NOV Monoflo

Waste Generator:

NOV Monoflo

Waste Stream Name:

Neutralized degreaser water

Expiration Date:

1/2/2009

As per our waste analysis plan, CES Environmental Services, Inc. requires recertification of all approved waste profiles on an annual basis. The purpose of this form is to confirm that no changes have been made in the generation process of the aforementioned waste stream and that the waste stream remains classified as nonhazardous as per 40 CFR 261.3.

Generator hereby certifies that the components in the aforementioned waste stream and the process generating this waste stream remain the same as when issued the aforementioned CES Waste Approval Number: (Check Appropriate Box)

No changes, please recertify.

Please send new profile as waste stream has changed.

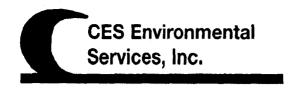
NOW. MINOFIL

Larry Black Customer Name

Jenny Spare to the generation wheel is the reservation wheel of the generation wheel of the country of the coun

EPAHO105001898

KMCO, Inc. 1997 Rof # 1997



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/8/2007

Dear Bill Glushko

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1997

Generator: KMCO, Inc.

Address: 16

16503 Ramsey Rd.

Crosby, TX 77532

Waste Information

Name of Waste: Non-RCRA biosludge

TCEQ Waste Code #: 20036072

Container Type:

Detailed Description of Process Generating Waste:

Biosludge from industrial wastewater treatment

Color: black

Odor: slight

pH: 4-9

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

n/a

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

MB

4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948

U.S. EPA ID No: TXD008950461

ISWR No: 30900

#1997

SECTION 1: Gene	rator information					
Company: Address:	- KM	Co				
City, State, Zip:			·		***	
Contact:	B171 G1	'ashko	Title:	EXX	man	
Phone No:	-12111 - 121	<u>variov</u>	Fax No:			
24/hr Phone:	281 635	-1114				
U.S. EPA I.D. No:	TXD 0741	98961		- 1		
State L.D.	31904		SIC Code:	286	9	
SECTION 2: Billin	g Information — []	Same as Above				
Company:						
Address:						
City, State, Zip:						
Contact:		Titl				
Phone No:	· · · · · · · · · · · · · · · · · · ·	Fax	No:			
ECTION 3: Gene	ral Description of t	he Waste				
	M 1 2 2 2	Biosholy Pating Waste: Bios			•	
Name of Waste:	IVON-KCRA	BIOSMOYE	11. 6.	1 de c 4 =	1 waskwoten	
retailed Description	n of Process Genera	ating Waste:	sudge mon 1	מומר לאמניי	, , , <u>, , , , , , , , , , , , , , , , </u>	
Physical States	☐ Liquid	مسعد الم			meatment	
DISTRAI DIMICI		17 { _48T 1	f To 7 .			
•	_	1 Sinage	☐ Powder		•	
•	Solid Solid	☐ Sludge ☐ Filter Cake	☐ Powder ☐ Combinat			
	_	Filter Cake	☐ Powder			
	_	Filter Cake Odor: Slight	☐ Powder ☐ Combinat			
Color: Black	□ Solid	Filter Cake Odor: Slight	☐ Powder ☐ Combinat			
Color: Black	□ Solid	Filter Cake	☐ Powder ☐ Combinat			
color: Black pecific Gravity (wa	Solid	Odor: Sight Density: 8,4-16	Combinati			
Color: Black Specific Gravity (wa	Solid	Odor: Sight Density:	Combinati			- Alphan Wasan and
Color: <u>Black</u> Specific Gravity (wa ayers:	Solid	Odor: Sight Density: 8,4-16	Powder Combinati			
Color: Block pecific Gravity (was ayers: Container Type:	Solid Solid Single-phase	Density: Multi-ph	Combinati	ion	Other (explain)	
Color: <u>Black</u> Specific Gravity (was Layers: Container Type:	Solid Single-phase	Density: Multi-ph	Powder Combinati	ion		
Color: Block Specific Gravity (was Layers: Container Type: Container Size:	Solid Single-phase Drum S.500 90	Density:	Powder Combination	ion	Other (explain)	
Color: Block Specific Gravity (was ayers: Container Type: Container Size: Frequency:	Solid Single-phase Drum S,500 50	Density: S. 4 - 16 Density: Multi-ph Tote Monthly	Powder Combination P. Cos/gal hase Quarterly	ion		
color: Block pecific Gravity (was ayers: container Type: container Size: frequency: fumber of Units (co	Solid Single-phase Drum S.500 % Weekly outsiners):	Density: S.4 - 16 Density: Multi-ph Tote Monthly Other:	Powder Combination P. C. Pos/gal hase Quarterly	ion	Other (explain)	
Color: Block Specific Gravity (was Layers: Container Type: Container Size: Frequency: Tumber of Units (colors state Waste Colors)	Solid Single-phase Drum S,50050 Weekly outsiners):	Density: S.4 - 16 Density: Multi-ph Tote Monthly Other:	Powder Combination P. C. Pos/gal hase Quarterly	ion	Other (explain)	
Color: Blook Specific Gravity (was Layers: Container Type: Container Size: Frequency: Number of Units (co	Solid Single-phase Drum S,50050 Weekly outsiners):	Density: Multi-ph	Powder Combination P. Cooling Powder Combination Powder Powder Combination Powder Quarterly Quarterly Co72	ion	Other (explain)	
Color: Blook Specific Gravity (was Layers: Container Type: Container Size: Frequency: Kumber of Units (colors State Waste Colors Colors State Waste Colors C	Solid Single-phase Drum S,50090 Weekly outsiners): Code No: httpping Name:	Density: S.4-16 Density: Multi-ph Tote Monthly Other: No N- Hazz	Powder Combination P. C. Pos/gal hase Quarterly GO77 Confour Gios	ion	Other (explain) ————————————————————————————————————	
Color: Blook Specific Gravity (was Layers: Container Type: Container Size: Frequency: Number of Units (colors State Waste Colors Colors State Waste Colors C	Solid Single-phase Drum S,50050 Weekly outsiners):	Density: S.4-16 Density: Multi-ph Tote Monthly Other: No N- Hazz	Powder Combination P. Cooling Powder Combination Powder Powder Combination Powder Quarterly Quarterly Co72	ion	Other (explain)	
Color: Block Specific Gravity (was ayers: Container Type: Container Size: Frequency: Fre	Solid Single-phase Drum S,500 50 Weekly outsiners): Lipping Name: UN/I	Density: Side Odor: Sight Density: Sight Multi-ph Tote Monthly Other: No N- Haze NA: NIP	Powder Powder Combination Powder Combination Pos/gal hase Quarterly Go77 Confous Gios PG:	ion	Other (explain) Yearly RQ:	
Color: Block Specific Gravity (was Layers: Container Type: Container Size: Frequency: Number of Units (colors State Waste Colors U.S. DOT State Class: MACHER MONG	Solid Single-phase Drum S.500 % Weekly outsiners): Lipping Name: UN/I	Density: S.4 - 16 Density: Multi-ph Tote Monthly Other: No N- Haz	Powder Powder Combination Powder Combination Pos/gal hase Quarterly Go77 Combination Proceedings Proceedings Reactive	bds. Cyanides	Other (explain) Yearly RQ:	
Color: Block Specific Gravity (was Layers: Container Type: Container Size: Frequency: Number of Units (co Fexas State Waste C Proper U.S. DOT St Class: NIP	Solid Single-phase Drum S.500 90 Weekly outsiners): Jode No: httpping Name: UN/I	Density: Side Odor: Sight Density: Sight Multi-ph Tote Monthly Other: No N- Haze NA: NIP	Powder Powder Combination Powder Combination Pos/gal hase Quarterly Go77 Confous Gios PG:	holya Cyanides	Other (explain) Yearly RQ:	

713 676 1676 P.02

CES Environmental Service

JAN-03-2007 14:01

SECTION 4: Physical and Chemical Data

600 / 0.00 T		機能
The waste consists of the following materials	Ranges are acceptable	or %
Warten	75 - 8590	
Biosolids Isludge	15- 26 %	
		<u> </u>

N arres	13 - 83/6	
Biosolids (studge	15-2690	
SECTION 5: Safety Related Data		
If the handling of this waste requires the use of special protection.	tive equipment, please explain.	
SECTION 6: Attached Supporting Documents		
List all documents, notes, data, and/or analysis attached to the	ais form as part of the waste approval package. I old, but process has not changed m, Anthony, or nickel are present.	┥.
SECTION 7: Incompatibilities	1	
Please list all incompatibilities (if any):	Man L	
- NONE		
SECTION 8: Generator's Knowledge Documentation		
Laboratory analysis of the hazardous waste characteristics, li generator knowledge:	isted below, WAS NOT PERFORMED based upon the	following
TCLP Metals: TCLP Volatiles: TCLP Semi-Volatiles: Reactivity: Corrosivity: Ignitability:		
SECTION 9: Generator's Certification		
The information contained herein is based on generator know attached description is complete and accurate to the best of momissions of composition properties exist and that all known or tested are representative of all materials described by this docume	y knowledge and ability to determine that no deliberate	1.AII
Authorized Signature: 41 Mullo	Date: //03/07	
Printed Name/Title:	LENK MER.	
/		
	. ,	
ces use only (do not write in this space)		
Compliance Officer: Poshema	Process Facility Information:	
Date: 1-8-07 Approved Rejected	OSL	
Approval Number: 1997	UIL	

2

Is this material a wastewater or wastewater sludge? YES NO If 'Yes', complete this section. PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE. Matals Subcategory: Subpart A Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electropiating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment OULS Subcateacry: Subpart B Used oils Oil-water emulsions or mixtures Lubricants Coolants Coolants Coolants Coolants Coolants Coolants Coolants Used petroleum products Oil spill clean-up Bilgo water Rinsel-wash waters from petroleum sources Interceptor wastes Off-specification finels Underground storage remediation waste Tank clean-out from petroleum oily sources Non-contact used glycols Aquecus and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes Organics Subcategory: Subpart C Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms	S	ECTION 10: Waste Receipt Classification Under 40 CFR 437
PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE. Metals Subcategory: Subpart A Spent electroplating baths and/or sludges Metal finishing rinso water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercuty Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment Olls Subcategory: Subpart B Used oils Oll-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilgs water Rinae/wash waters from petroleum sources Interceptor wastes Off-specification fiels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning-operations Wastewater from oil bearing paint washes Organics Subcategory: Subpart C	L	s this material a wastewater or wastewater sludge? YES NO
Metals Subcategory: Subpart A	I	? 'Yes', complete this section.
Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-conteining wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment Oils Subcategory: Subpart B Used oils Oil-water emulsions or mixtures Lubricants Coolants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification finis Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes Organics Subcategory: Subpart C	F	LEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.
Metal flaishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment Olls Subcategory: Subpart B Used oils Oil-water emulsions or mixtures Lubricants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes Organics Subcategory: Subpart C	Me	tals Subcategory: Subpart A
Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes Organics Subcategory: Subpart C		Metal finishing rinse water and studges Chromate wastes Air pollution control blow down water and studges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater
Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes Organics Subcategory: Subpart C	<u>OUs</u>	Subcategory: Subpart B
	_	Colants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes
Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms	Orga	nics Subcategory: Subpart C
Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources		Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations

(1)	If the	waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess values listed below, the waste should be classified in the metals subcategory.
	Chron	ium: 0.2 mg/L nium: 8.9 mg/L ar: 4.9 mg/L i: 37.5 mg/L
(3)	If the nickel	waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, of above any of the values listed above, the waste should be classified in the organics subcategory.
		Metals Subcategory
		Oils Subcategory
		Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oll and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

MES

Mercury Environmental Services, Inc.

6913 Hwy. 225 • Deer Park, Texas 77536

March 24, 2003

KMCO 16503 Ramsey Crosby, TX 77532 RECEIVED

1 5 2003

ATTENTION:

Mr. Bill Glushko

SAMPLE NUMBER:

3030770

SAMPLE I.D.:

Wastewater System Bottom Sludge Grab.

03-20-03 @ 1600

DATE RECEIVED:

March 20, 2003 @ 1850

CERTIFICATE OF ANALYSIS

VOLATILE ORGANICS	METHOD SW 846/8260B	RESULTS mg/kg	DATE/TIME/ANALYST
Dichlorofluoromethane Chloromethane Vinyl chloride Bromomethane Chloroethane		< 0.005 < 0.010 < 0.010 < 0.010 < 0.010 < 0.005	03-21-03 1105 HDG
Trichloroflouromethane Diethyl ether		< 0.005	•
Acetone 1,1-dichloroethene		< 0.020 < 0.005 < 0.005	
Methylene chloride Acrylonitrile Carbon disulfide		< 0.003 < 0.050 < 0.005	
Trans-1,2-dichloroethene Isobutyl alcohol		< 0.005 < 0.500	
1,1-dichloroethane Propionitrile		< 0.005 < 0.500	
2-butanone 2,2-dichloropropane		< 0.050 < 0.005	
cis-1,2-dichloroethene Methacrylonitrile		< 0.005 < 0.005	
Chloroform Bromochloromethane		< 0.005 < 0.005	
1,1,1-trichloroethane 1,1-dichloropropene		< 0.005 < 0.005	
Carbon tetrachloride 1,2-dichloroethane Benzene		< 0.005 < 0.005 0.01 0	
D0112.0110		0.010	

CERTIFICATE OF ANALYSIS CONTINUED

VOLATILE ORGANICS	METHOD SW 846/8260B	RESULTS mg/kg	DATE/TIME/ANALYST
Trichioroethene		< 0.005	03-21-03 1105 HDG
1,2-dichioropropane		< 0.020	03-21-03 1100 HDG
Methyl methacrylate		< 0.005	
Bromodichloromethane		< 0.005	•
Dibromomethane		< 0.005	
2-hexanone		< 0.020	
cis-1,3-dichloropropene		< 0.005	
Toluene		2.74	
Trans-1,3-dichloropropene		< 0.005	
Ethyl methacrylate		< 0.005	
1,1,2-trichloroethane		< 0.005	
4-methyl-2-pentanone		< 0.010	
1,3-dichloropropane		< 0.005	
Tetrachloroethene		< 0.005 < 0.005	
Dibromochloromethane		< 0.005 < 0.005	
1,2-dibromoethane		< 0.005	
Chlorobenzene		< 0.005 < 0.005	
•,		< 0.005 < 0.005	
1,1,1,2-tetrachioroethane		0.009	
Ethylbenzene		*****	
m+p-xylene		0.373	•
o-xylene		0.127	
Styrene		< 0.005	
Bromoform		< 0.005	
Isopropylbenzene		< 0.005	
1,1,2,2-tetrachloroethane		< 0.005	
1,2,3-trichloropropane		< 0.005	
Bromobenzene		< 0.005	
n-propylbenzene		0.006	
1,3,5-trimethylbenzene		0.011	
2- chlorotoluene		< 0.005	
4-chlorotoluene		< 0.005	
Tert-butylbenzene		< 0.005	
1,2,4-trimethylbenzene		0.034	
sec-butylbenzene		< 0.005	
4-Isopropyltoluene		0.008	
1,3-Dichlorobenzene		< 0.005	
1,4-Dichlorobenzene		< 0.005	
N-butylbenzene		0.030	
1,2-Dichlorobenzene		< 0.005	
1,2-Dibromo-3-Chloropropane		< 0.005	
1,2,4-Trichlorobenzene		< 0.005	
Hexachlorobutadiene		< 0.005	
Naphthalene		0.024	
1,2,3-Trichlorobenzene		< 0.005	

– Mercury Environmental Services, Inc. –

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CERTIFICATE OF ANALYSIS CONTINUED

aphthylene	SEMIVOLATILE ORGANICS	METHOD SW 846/8270C	RESULTS mg/kg	DATE/TIME/ANALYST
aphthylene	Acenaphthene		< 1.0	03-24-03 1417 TFR
Ophenone California Calif	Acenaphthylene		< 1.0	
Inche	Acetophenone		< 1.0	
Section Sect	Analine		< 1.0	
Second S	Anthracene		< 1.0	
2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010 2010	4-Aminobiphenyl		< 1.0	
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Benzidine `		< 10.0	
Section Sect	Benzoic acid			
Co(k)fluoranthene	lenzo(a)anthracene			
Co(k)fluoranthene	Benzo(b)fluoranthene			
Section Sect	Benzo(k)fluoranthene			
2-chloroethoxy)methane	Benzo(g,h,i)perylene			
-chloroethoxy)methane	enzo(a)pyrene			
C-chloroethyl)ether	lenzyl alcohol			
2-chloroisopropyl)ether	Bis(2-chioroethoxy)methane			
-efhylhexyl)phthalate	is(2-chloroethyl)ether		< 1.0	
Sample S	s(2-chloroisopropyl)ether			
benzyl phthalate	s(2-ethylhexyl)phthalate			
International Components	Bromophenyl phenyl ether			
Ioronaphthalene	ıtyl benzyl phthalate			
Ioronaphthalene	Chloroaniline			
Ioro-3-methylphenol	Chloronaphthalene			
Iorophenol	Chloronaphthalene			
Iorophenyl phenyl ether	Chloro-3-methylphenol			
sene < 1.0	Chlorophenol			
nz(a,h)anthracene < 1.0				
hzofuran < 1.0 butyl phthalate < 1.0 bichlorobenzene < 1.0 bichlorobenzene < 1.0 bichlorobenzene < 1.0 bichlorobenzidine < 4.0 bichlorophenol < 1.0	rysene	•		
butyl phthalate < 1.0 bichlorobenzene < 1.0 bichlorobenzene < 1.0 bichlorobenzene < 1.0 bichlorobenzidine < 4.0 bichlorophenol < 1.0 control < 1.0 bichlorophenol < 1.0				
bichlorobenzene < 1.0 bichlorobenzene < 1.0 bichlorobenzene < 1.0 bichlorobenzidine < 4.0 bichlorophenol < 1.0 bic	penzofuran			
bichlorobenzene < 1.0 bichlorobenzene < 1.0 bichlorobenzidine < 4.0 bichlorophenol < 1.0 bimethylbenz(a)anthracene < 1.0 bimethylphenol < 1.0	n-butyl phthalate		-	
bichlorobenzene <1.0 Dichlorobenzidine <4.0 Dichlorophenol <1.0 Dichlorophenol <1.0 Dichlorophenol <1.0 Dimethylbenz(a)anthracene <1.0 Dimethylphenol <1.0				
Dichlorobenzidine < 4.0 bichlorophenol < 1.0 bichlorophenol < 1.0 byl phthalate < 1.0 Dimethylbenz(a)anthracene < 1.0 bimethylphenol < 1.0				
bichlorophenol < 1.0 bichlorophenol < 1.0 bichlorophenol < 1.0 bimethylbenz(a)anthracene < 1.0 bimethylphenol < 1.0				
bichlorophenoi < 1.0 yl phthalate < 1.0 Dimethylbenz(a)anthracene < 1.0 bimethylphenol < 1.0	3'-Dichlorobenzidine			
yl phthalate < 1.0 Dimethylbenz(a)anthracene < 1.0 Dimethylphenol < 1.0	4-Dichlorophenol			
Dimethylbenz(a)anthracene < 1.0 elmethylphenol < 1.0	6-Dichlorophenol		, ,	
imethylphenol <1.0	iethyl phthalate			
The state of the s		₿		
thyl phthalate < 1.0	4-Dimethylphenol			
	methyl phthalate		< 1.0	

– Mercury Environmental Services, Inc. ————

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CERTIFICATE OF ANALYSIS CONTINUED

METHOD SEMIVOLATILE ORGANICS SW 846/8270C	RESULTS mg/kg DATE/TIME/ANALYST
4,6-Dinitro-2-methylphenol	< 10.0 03-24-03 1417 TFR
2,4-Dinitrophenol	< 10.0
2,4-Dinitrotoluene	< 1.0
2,6-Dinitrotoluene	< 1.0
Diphenylamine	< 1.0
Di-n-octyl phthalate	< 1.0
Fluoranthene	< 1.0
Fluorene	< 1.0
Hexachlorobenzene	< 1.0
Hexachlorobutadiene	< 1.0
Hexachlorocyclopentadiene	< 1.0
Hexachloroethane	< 1.0
Indeno(1,2,3-cd)pyrene	< 1.0
Isophorone	< 1.0
2-Methylnaphthalene	< 1.0
2-Methylphenol	< 1.0
4-Methylphenoi	< 1.0
Naphthalene	< 1.0
1-Naphthylamine	< 1.0
2-Naphthylamine	< 1.0
2-Nitroaniline	< 10.0
3-Nitroaniline	< 10.0
4-Nitroaniline	< 10.0
Nitrobenzene	< 1.0
2-Nitrophenol	< 1.0
4-Nitrophenol	< 10.0
N-Nitrosodibutylamine	< 1.0
N-Nitrosodimethylamine	< 1.0
N-Nitrosodiphenylamine	< 1.0
N-Nitrosodipropylamine	< 1.0
Pentachlorobenzene	< 1.0
Pentachloronitrobenzene	< 1.0
Pentachlorophenol	< 4.0
Phenanthrene	< 1.0
Phenol	< 1.0
Pyrene	< 1.0
1,2,4,5-Tetrachlorobenzene	< 1.0
2,3,4,6-Tetrachlorophenol	< 1.0
,2,4-Trichlorobenzene	< 1.0
2,4,5-Trichlorophenol	< 1.0
2,4,6-Trichlorophenol	< 1.0

– Mercury Environmental Services, Inc. ——

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CERTIFICATE OF ANALYSIS CONTINUED

TOTAL METALS	METHOD	MDL mg/kg	RESULTS mg/kg	DATE/TIME/ANALYST			
Arsenic	6010	0.13	0.15	03-21-03 1534 YMR			
Barium	6010	0.05	5.46	03-21-03 1534 YMR			
Cadmium	6010	0.10	< 0.10	03-21-03 1534 YMR			
Chromium	6010	0.18	2.22	03-21-03 1534 YMR			
Lead	6010	0.25	< 0.25	03-21-03 1534 YMR			
Mercury	7470	0.005	< 0.005	03-21-03 1635 YMR			
Selenium	6010	0.13	< 0.13	03-21-03 1534 YMR			
Silver	6010	0.15	< 0.15	03-21-03 1534 YMR			

Signature Augustine Poole / QAQC Manager

March 24, 2003

- Mercury Environmental Services, Inc. -

3030770

MERCURY ENVIRONMENTAL SERVICES QA/QC REPORT

SURROGAT	RROGATE SPIKE RECOVERY FOR VOLATILES					% REC					
Dibromofluor Toluene-d8 4-Bromofluor						86.6 90.1 100.6					
SURROGAT	E SPIKE RECO	OVERY FOR	RSEMIVOL	ATILES		% REC					
2-Fluorophen Nitrobenzene 2-Fluorobiphe 2,4,6-Tribrom p-Terphenyl-o Phenol-d6	e-d5 enyi eophenol			96.1 116.0 97.7 77.8 108.0 44.6							
ANALYTE	MB mg/L	LCS %REC	LCSD %REC	RPD	MS %REC	CCB mg/L	CCV %REC				
Arsenic Barlum Cadmlum Chromium Lead Mercury Selenium	< 0.005 < 0.002 < 0.004 < 0.007 < 0.010 < 0.005 < 0.005 < 0.006	107.0 104.0 96.5 102.0 102.0 103.8 97.7 101.6	109.5 102.0 97.1 102.0 107.5 104.2 101.0 101.6	2.31 1.94 0.62 0.00 5.25 0.38 3.32 0.00	95.4 100.0 103.6 101.2 104.6 104.0 105.6 103.6	< 0.005 < 0.002 < 0.004 < 0.007 < 0.010 < 0.095 < 0.005 < 0.006	93.1 101.0 99.1 99.0 103.0 103.0 100.0 103.0				

Key to QA Abbreviations

MS=Matrix Spike
MSD=Matrix Spike Duplicate
RPD=Relative Percent Deviation
MB=Method Blank
LCS=Laboratory Control Standard
CCV=Continuing Calibration Verification
CCB=Continuing Calibration Blank
%Rec=Percent Recovery

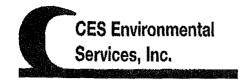
Signature: Jacqueine Poole / QAQC Manager

March 24, 2003

– Mercury Environmental Services, Inc. -

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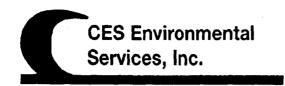
COMPANY NAME: (BILL TO:)		·			.] ,	ME	ES	- (CHAIN C	F CUS	TODY	1-800-771-4MES (281) 476-4534
COMPANY ADDRESS: 16503 RAMSEY CITY Crown STATE To ZIP 77532					Mercury Environmental Services Fax (281)-476-4406 6913 Hwy. 225 • Deer Park, TX 77536							
CITY				PARAMETERS FOR ANALYSIS 5 1 1 1 1 1 1 1 1 1 1 1 1					TURNAROUND TIME			
YOUR PROJECT NO.: YOUR P.O. #: PROJECT ADDRESS:			OJECT NAME:			Primi	Emil Klatil		10年	ER OF CO.	PRESERVATIONS	DETECTION LIMITS SPECIAL LIMITS REQUIRED Yes No
YOUR SAMPLE DESCRIPTION	GRAB/COMP.	DATE	TIME	MATRIX	 		(3)	1	//	NUMB	PAESE	Please circle one, if Yes, please describe below or include separate sheet detailing requirements.
WASTEWATER System bottom sludge												
bottom sludge	6	3/20	1600	214	$ \lambda $		X	K		2		
.												
							· ·					FOU
					-							
PERSON TAKING SAMPLE SIGNATURE (a Print Name a. Bill Coly hile a.	13 1,	lula	<u>-</u>	(Sign	NOUISHED	1	lost	<u> </u>	DATE	TIME (6:	(Sign	EIVED BY:
	D 185	RECEIVED (Signature)	ndy 2	Wis (Sign	INQUISHED	BY		RECEIVED I	DATE FOR MES BY:	TIME		EIVED BY:
Sample Remainder Disposal			(Sign	oture)	Request L	ab To D	ispose Of 7	(Il Sample F	ndus	Dau	<u>is</u>	360 1850
☐ Return Sample Remainder To Client Via				(Sign	nature)				<u> </u>		Date)	



4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1676

Waste Profile Re-Certification Form

CES Waste Approval #:	<u>HOU-1997</u>	
Customer:	KMCO, Inc.	
Waste Generator:	KMCO, Inc.	V
Waste Stream Name:	Non-RCRA bioslud	<u>dge</u>
Expiration Date:	1/8/2009	
profiles on an annual basis, generation process of the a hazardous as per 40 CFR 2 Generator hereby certifies to	The purpose of this form forementioned waste stream 61.3.	Services, Inc. requires recertification of all approved waste m is to confirm that no changes have been made in the sam and that the waste stream remains classified as non-nee aforementioned waste stream and the process generating ne aforementioned CES Waste Approval Number: (Check
No changes, please rece	rtify.	Analysis is NOT required for recertification.
Please send new profile has changed.	as waste stream	The following analysis is required for recertification. Please sumbit results of the following tests.
Customer Name Signature LM CO, EM Company / Title 4/28/09	P. BIII Glash.	TCLP Metals TCLP Volatiles TCLP Semi-volatiles Reactivity Corrosivity Ignitability
Date		



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/8/2007

Dear Kealy

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1998

Generator: Teakwood Marine **Address:** 615 Tiki Drive

Tiki Island, TX 77554-8112

Waste Information

Name of Waste: Unused gasohol TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

Unused gasohol from underground storage tanks

Color: yellow

Odor: gas

pH: na

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

Nomex, head, eye, head protection

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

1998

5 < 3

4904 Griggs Road

Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com TCEQ Industrial Solid Waste Permit No: 30948

U.S. EPA ID No: TXD008950461

ISWR No: 30900

SECTION 1: Gener							
Company:	Teakwood Marine	<u> </u>			·		
Address:	615 Tiki Drive						
City, State, Zip:	Tiki Island, TX						
Contact:	Kealey			Title:	Contractor		
Phone No:	713-661-0443			Fax No:	713-661-0425		
24/hr Phone:	713-661-0443			•			
U.S. EPA I.D. No:	TXCESQG				. ! .		
State I.D.	CESQG			SIC Code:	NA		
SECTION 2: Billing	g Information –	Same as Above			•	•	
Company:	Cleartmont Property	Management					
Address:	5555 West Loop Sou	th Suite 100					
City, State, Zip:	Belair, TX 77401						
· · · · · · · · · · · · · · · · · · ·	Accts Payable Per K	ealy	Title:				
	713-661-0443			713-661-0425			
SECTION 3: Gener	al Description of th	e Waste					
Name of Waste: Unit Detailed Description		ing Waste: <u>Unu</u>	sd Gasohol fr	om undergroun	d storage tanks		
Physical State:	☑ Liquid☑ Solid	☐ Sludge ☐ Filter Ca	ke 🔲	Powder Combination	I		
Color: Yellow	•	Odor: <u>Gas</u>					
Specific Gravity (wa	ter=1): <u>.8-1</u>	Density: <u>7.8</u>	lbs/gal				
Layers:	☐ Single-phase	⊠ Mul	ti-phase				
Container Type: Container Size:	☐ Drum	☐ Tote		Truck 5-1000	□ Ot	her (explain)	
Frequency: Number of Units (co	☐ Weekly ntainers): 1	☐ Monthly Other: _		Quarterly	☐ Ye	arly	
Texas State Waste C	ode No: Re	cycled					
Proper U.S. DOT Shi	-	Gashol					
Class: 3	UN/N	A: NA 1203	<u></u>	PG: II	· · · · · · · · · · · · · · · · · · ·	RQ:	N#
Flash Point	pН	Reactive Sulfid	les	Reactive Cy	anides	Solids	
<u>>100</u>	<u>NA</u>	NAmg/I		NAmg/I		<u>0-1%</u>	
Oil&Grease	TOC	Zinc	C	opper	Nickel		
NAmg/l	NAmg/I	<u>0</u> mg/l		mg/l	<u>0</u> mg/l	·	

NAmg/l

SECTION 4: Physical and Chemical Data

Concentration	Units	
Ranges are acceptable	or %	
95-100	%	
0-5	%	
		
	 	
	Ranges are acceptable 95-100	

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain.

Nomex, head, eye, head protection

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. None

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

Oxidizers

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals:	<u>X</u>	
TCLP Volatiles:	$\overline{\underline{\mathbf{X}}}$	
TCLP Semi-Volatiles:	$\overline{\underline{X}}$	
Reactivity:	$\overline{\underline{\mathbf{X}}}$	
Corrosivity:	X	
Ignitability:	$\overline{\underline{X}}$	
SECTION 9: Generate	or's Certification	
The information contains	ad harrin is based on Magazatar knowledge and/or Agnalytical data. The	oro

The information contained herein is based on generator knowledge and/or analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Authorized Signature:

Date: 01/09/07

Printed Name/Title: No Signature Required	
CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer: C	Process Facility Information:

	Compliance Officer: Policanthy	Process Facility Information:
i	Date: 1-8-07 Approved Rejected	REC
-	Approval Number:	

5	SECTION 10: Waste Receipt Classification Under 40 CFR 437
I	s this material a wastewater or wastewater sludge? YES NO
I	f 'Yes', complete this section.
i	PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.
<u>Me</u>	etals Subcategory: Subpart A
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations
	Vibratory deburring wastewater
Ц	Alkaline and acid solutions used to clean metal parts or equipment
Oil.	s Subcategory: Subpart B
	Used oils Oil-water emulsions or mixtures Lubricants Coolants
	Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up
	Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels
	Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes
9rg	anics Subcategory: Subpart C
	Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms
	Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources

(1)	If the	waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess values listed below, the waste should be classified in the metals subcategory.
	Chron Coppe	ium: 0.2 mg/L nium: 8.9 mg/L r: 4.9 mg/L : 37.5 mg/L
(3)		waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or above any of the values listed above, the waste should be classified in the organics subcategory.
		Metals Subcategory
		Oils Subcategory
		Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

Enterprise Rockuts (May 1999)

7 - 34 1 - 24 2 - 4 - 07

4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/8/2007

Dear Jennifer Mollhagen

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1999

Generator: Enterprise Products (Manvel)

Address: 9315 Uzell

Manvel, TX 77578

Waste Information

Name of Waste: Foam pigs

TCEQ Waste Code #: CESQ4891

Container Type:

Detailed Description of Process Generating Waste:

Pigs used to clean sludge from natural gas pipeline

Color: black/yellow

Odor: oil like

pH: neutral

Physical State:

Incompatibilities: oxidizers

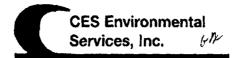
Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



1999

4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Generator Information	SECTION 1: Cana	rotor Information					
Address: 9315 Uzzell Road City, State, Zip: Manvel, TX 77578 Contact: Harvey Wagner Title: Operation Supervisor Phone No: 281-331-6693 Fax No: 281-331-0672 ZM/hr Phone: CES-31-3693 CESQG SIC Code: CESQG SIC Code: CSQG SIC LD. No: 7 V CESQG SIC Code: CESQG SIC Company: Enterpires Products Operating LP/Station 812 City, State, Zip: Manvel, TX 77578 Contact: Kathleen Ballinger Title: Accounts Payable Address: 9315 Uzzell Road Fax No: 281-331-0672 Z81-331-0672 Z81-331-0672			s Operation LP/Station	n 812			
City, State, Zip:	• •						
Contact:	City, State, Zip:		3				
24/hr Phone:		Harvey Wagner			Title:	Operatio	on Supervisor
U.S. EPA I.D. No: 7 V CESQG State I.D. CESQG SIC CESQG SIC COde: A SECTION 2: Billing Information — Same as Above Company: Enterprise Products Operating LP/Station 812 Address: 3915 Uzzell Road City, State, Zip: Manvel, TX 77578 Contact: Kathleen Ballinger Title: Accounts Payable Phone No: 281-331-4693 Ext. 2040 Fax No: 281-331-0672 SECTION 3: General Description of the Waste Name of Waste: Foam Pigs Detailed Description of Process Generating Waste: Pigs used to clean sludge from natural gas pipeline Physical State: Liquid Sludge Powder Solid Filter Cake Combination Color: Black/yellow Odor: oil like Specific Gravity (water=1): 80 Density: 7 lbs/gal Layers: Single-phase Multi-phase Container Type: Drum Tote Truck Other (explain) Container Size: 55 gal Frequency: Weekly Monthly Quarterly Yearly Number of Units (containers): 6 Other: Texas State Waste Code No: CESQ4891 Proper U.S. DOT Shipping Name: Non-RCRA; Non DOT Regulated Material Class: NA UN/NA: NA PG: NA RQ: NA Flash Point pH Reactive Sulfides Comp/1 100% Oil&Grease TOC Zine Copper Nickel	Phone No:	281-331-4693			Fax No:	281-331	-0672
SECTION 2: Billing Information — Same as Above Company:	24/hr Phone:	CES-713-676-1460)		- -		
SECTION 2: Billing Information — Same as Above Company: Enterpirse Products Operating LP/Station 812 Address: 9315 Uzzell Road City, State, Zip: Manvel, TX 77578 Contact: Katheen Ballinger Title: Accounts Payable Phone No: 281-331-4693 Ext. 2040 Fax No: 281-331-0672 SECTION 3: General Description of the Waste Name of Waste: Foam Pigs Detailed Description of Process Generating Waste: Pigs used to clean sludge from natural gas pipeline Physical State: Liquid Sludge Powder Solid Filter Cake Combination Color: Black/vellow Odor: oil like Specific Gravity (water=1): 80 Density: 7 lbs/gal Layers: Single-phase Multi-phase Container Type: Drum Tote Truck Other (explain) Container Size: 55 gal Frequency: Weekly Monthly Quarterly Yearly Number of Units (containers): 6 Other: Truck Other (explain) Container Size: NA UN/NA: NA PG: NA RQ: NA Flash Point PH Reactive Sulfides Reactive Cyanides Solids Omg/1 100% Dil&Crease TOC Zine Copper Nickel	U.S. EPA I.D. No: 7	X CESQG			_	Α	۸
Enterpirse Products Operating LP/Station 812	State I.D.	CESQG			SIC Code:	N/	7
Enterpirse Products Operating LP/Station 812					-		
Address: 9315 Uzzell Road		g Information - S	ame as Above				
City, State, Zip: Manvel, TX 77578 Contact: Kathleen Ballinger Title: Accounts Payable Phone No: 281-331-4693 Ext. 2040 Fax No: 281-331-0672 SECTION 3: General Description of the Waste Name of Waste: Foam Pigs Detailed Description of Process Generating Waste: Pigs used to clean sludge from natural gas pipeline Physical State: Liquid Sludge Powder Solid Filter Cake Combination Color: Black/yellow Odor: oil like Specific Gravity (water=1): 80 Density: 7 lbs/gal Layers: Single-phase Multi-phase Container Type: Drum Tote Truck Other (explain) Container Size: 55 gal Frequency: Weekly Monthly Quarterly Yearly Number of Units (containers): 6 Other: Texas State Waste Code No: CESQ4891 Proper U.S. DOT Shipping Name: Non-RCRA; Non DOT Regulated Material Class: NA UN/NA: NA PG: NA RQ: NA Flash Point PH Reactive Sulfides Reactive Cyanides Omg/l 100% Oil&Grease TOC Zinc Copper Nickel			Operating LP/Station 8	112			
Contact: Kathleen Ballinger Title: Accounts Payable Phone No: 281-331-4693 Ext. 2040 Fax No: 281-331-0672 SECTION 3: General Description of the Waste Name of Waste: Foam Pigs Detailed Description of Process Generating Waste: Pigs used to clean sludge from natural gas pipeline Physical State:							
Phone No: 281-331-4693 Ext. 2040 Fax No: 281-331-0672 SECTION 3: General Description of the Waste Name of Waste: Foam Pigs Detailed Description of Process Generating Waste: Pigs used to clean sludge from natural gas pipeline Physical State:					- <u> </u>		
SECTION 3: General Description of the Waste						ible	
Name of Waste: Foam Pigs Detailed Description of Process Generating Waste: Pigs used to clean sludge from natural gas pipeline Physical State:	Phone No:	281-331-4693 Ext. 20	040 Fax	No:	281-331-0672		
Name of Waste: Foam Pigs Detailed Description of Process Generating Waste: Pigs used to clean sludge from natural gas pipeline Physical State:							
Detailed Description of Process Generating Waste: Pigs used to clean sludge from natural gas pipeline Physical State:	SECTION 3: Gene	ral Description of the	Waste				
Solid			ing Waste: Pigs used	to clea	an sludge from na	atural gas	pipeline
Solid	Dhawiaal Ctatas	C Timuid	Sludge	-	Dowdon		
Color: Black/yellow Odor: oil like Specific Gravity (water=1): 80 Density: 7 lbs/gal Layers: Single-phase Multi-phase Container Type: Drum Tote Truck Other (explain) Container Size: 55 gal Frequency: Weekly Monthly Quarterly Yearly Number of Units (containers): 6 Texas State Waste Code No: CESQ4891 Proper U.S. DOT Shipping Name: Non-RCRA; Non DOT Regulated Material Class: NA UN/NA: NA PG: NA RQ: NA Flash Point pH Reactive Sulfides Reactive Cyanides Omg/l 100% Oil&Grease TOC Zinc Copper Nickel	Physical State:	-		<u>_</u>	_		
Specific Gravity (water=1): .80 Density: 7 lbs/gal Layers: Single-phase		⊠ Solid	Filter Cake	L		l	
Layers: Single-phase	Color: Black/yellow	· c	dor: <u>oil like</u>				
Container Type: Drum Tote Truck Other (explain) Container Size: 55 gal Frequency: Weekly Monthly Quarterly Yearly Number of Units (containers): 6 Other: Texas State Waste Code No: CESQ4891 Proper U.S. DOT Shipping Name: Non-RCRA; Non DOT Regulated Material Class: NA UN/NA: NA PG: NA RQ: NA Flash Point pH Reactive Sulfides Reactive Cyanides Omg/l 100% Oil&Grease TOC Zinc Copper Nickel	Specific Gravity (w	ater=1): <u>.80</u>	Density: 7 lbs/gal				
Container Size: 55 gal Frequency: Weekly Monthly Quarterly Yearly Yearly Yearly Wumber of Units (containers): 6 Other:	Layers:	⊠ Single-phase	Multi-ph	ase			
Container Size: 55 gal Frequency: Weekly Monthly Quarterly Yearly Yearly Yearly Wumber of Units (containers): 6 Other:	Cantainan Tunas	Drum	□ Tote		Truck	П	Other (explain)
Frequency:	• •			لبسا	AIGCR	لسما	Other (explain)
Number of Units (containers): 6 Other: Texas State Waste Code No: CESQ4891 Proper U.S. DOT Shipping Name: Non-RCRA; Non DOT Regulated Material Class: NA UN/NA: NA PG: NA RQ: NA Flash Point pH Reactive Sulfides Reactive Cyanides Omg/l Omg/l 100% Oil&Grease TOC Zinc Copper Nickel	Container Size:	<u>55 gai</u>					
Number of Units (containers): 6 Other: Texas State Waste Code No: CESQ4891 Proper U.S. DOT Shipping Name: Non-RCRA; Non DOT Regulated Material Class: NA UN/NA: NA PG: NA RQ: NA Flash Point pH Reactive Sulfides Reactive Cyanides Omg/l Omg/l 100% Oil&Grease TOC Zinc Copper Nickel							
Texas State Waste Code No: CESQ4891 Proper U.S. DOT Shipping Name: Non-RCRA; Non DOT Regulated Material Class: NA UN/NA: NA PG: NA RQ: NA Flash Point pH Reactive Sulfides Reactive Cyanides Omg/l Omg/l 100% Oil&Grease TOC Zinc Copper Nickel	Frequency:	☐ Weekly	Monthly		Quarterly	\boxtimes	Yearly
Proper U.S. DOT Shipping Name: Class: NA UN/NA: NA PG: NA RQ: NA Flash Point pH Reactive Sulfides Reactive Cyanides Solids 2140 neutral Omg/l Omg/l 100% Oil&Grease TOC Zinc Copper Nickel	Number of Units (c	ontainers): <u>6</u>	Other:				
Proper U.S. DOT Shipping Name: Class: NA UN/NA: NA PG: NA RQ: NA Flash Point pH Reactive Sulfides Reactive Cyanides Solids 2140 neutral Omg/l Omg/l 100% Oil&Grease TOC Zinc Copper Nickel	Texas State Waste	Code No: CE	SQ4891				
Class: NA UN/NA: NA PG: NA RQ: NA Flash Point pH Reactive Sulfides Qmg/l Qmg/l 100% Oil&Grease TOC Zinc Copper Nickel	P W.O. P.O. T.O.		`	- DO'	T Dogwlated Mat	onia l	
Flash Point pH Reactive Sulfides Reactive Cyanides Solids >140 neutral Omg/l Omg/l 100% Oil&Grease TOC Zinc Copper Nickel	Proper U.S. DOT'S	nipping Name:		טת חט			
>140 neutral Qmg/l Qmg/l 100% Oil&Grease TOC Zinc Copper Nickel	Class: NA	. UN/N	A: NA		PG: NA		RQ: NA
>140 neutral Qmg/l Qmg/l 100% Oil&Grease TOC Zinc Copper Nickel							
>140 neutral Qmg/l Qmg/l 100% Oil&Grease TOC Zinc Copper Nickel		1 - 17	Danatina Galeda		Događina Ca		Colida
Oil&Grease TOC Zinc Copper Nickel						anides	
						N:	
				Ì			

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE The waste consists of the following materials	Concentration Ranges are acceptable	Units or %
Foam Pigs	0-100	%
Plastic and trash	0-100	%
Condensate Oil	0-5	%

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. Level \underline{D}

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. Analysis

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

Oxidizers

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals:	
TCLP Volatiles:	Benzene
TCLP Semi-Volatiles:	<u>X</u>
Reactivity:	<u>X</u>
Corrosivity:	<u>X</u>
Ignitability:	<u>X</u>

SECTION 9: Generator's Certification

The information contained herein is based on \boxtimes generator knowledge and/or \boxtimes analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Printed Name/Title: Mes/ey		.ld Env. Engr.
CES USE ONLY (DO NOT WRITE IN TH	IS SPACE)	
Compliance Officer: Release	Thy	Additional Information:
Date: 1-8-07	Approved / Rejected	DS
Approval Number: 1999		

SECTION 10: Waste Receipt Classification Under 40 CFR 437							
Is t	his material a wastewater or wastewater sludge? YES NO						
If'	Yes', complete this section.						
PL	EASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.						
<u>Meta</u>	ls Subcategory: Subpart A						
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment						
Oils S	Subcategory: Subpart B						
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes						
<u>Orga</u>	Organics Subcategory: Subpart C						
	Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources						

(1)	If the w	raste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		raste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess ralues listed below, the waste should be classified in the metals subcategory.
	Chrom Copper	um: 0.2 mg/L ium: 8.9 mg/L : 4.9 mg/L 37.5 mg/L
(3)		vaste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or above any of the values listed above, the waste should be classified in the organics subcategory.
		Metals Subcategory
		Oils Subcategory

SECTION 11: Additional Instructions

Organics Subcategory

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

Mercury Environmental Services, Inc.

6913 HWY 225, Deer Park, TX 77536 Phone: (281)-476-4534 Fax: (281)-476-4406

CES Environmental Services

4904 Griggs Rd Houston, TX 77021 Phone: (713) 676-1460 Fax: 7136761676

Attn:

Gary Brauckman

- CERTIFICATE OF RESULTS -

MES Lab#:

6120560

Client Sample ID:

Pipeline Pigs

Extended ID:

Enterprise Manvel

Sample Collect Date: 12/22/2006 @ 10:00:00 AM

Sample Type:

Grab

Sample Receipt Date: 12/26/2006 @ 11:30:00 AM

Test Group / Method

TCLP Metals (8) Method: SW-846 6010B	MDL	RL	Result	Units	Analyst: TFR Date / Time
Arsenic	0.014	5	0.108	mg/L	12/29/2006 / 12:46 AM
Barium	0.0005	100	0.329	mg/L	12/29/2006 / 12:46 AM
Cadmium	0.002	1	0.007	mg/L	12/29/2006 / 12:46 AM
Chromium	0.002	5	0.006	mg/L	12/29/2006 / 12:46 AM
Lead	0.005	5	0.013	mg/L	12/29/2006 / 12:46 AM
Selenium	0.024	1	0.074	mg/L	12/29/2006 / 12:46 AM
Silver	0.002	5	0.007	mg/L	12/29/2006 / 12:46 AM
TCLP Mercury Method: SW-846 7470A	MDL	RL	Result	Units	Analyst: TRAHM Date / Time
Mercury	0.0002	0.2	0.0022	mg/L	12/27/2006 / 10:31 PM
BTEX Method: SW-846 8021B	MDL		Result	Units	Analyst: TFR Date / Time
Benzene	0.5		< 0.5	mg/kg	12/28/2006 / 11:07 PM
Toluene	0.5		1.2	mg/kg	12/28/2006 / 11:07 PM
Ethyl benzene	0.5		< 0.5	mg/kg	12/28/2006 / 11:07 PM
M+P-Xylene	0.5		< 0.5	mg/kg	12/28/2006 / 11:07 PM
o-Xylene	0.5		< 0.5	mg/kg	12/28/2006 / 11:07 PM

Flags: H: Exceeds "High Limit" L: Below "Low Limit" RL=regulatory limit

Holland D. Gilmore, Laboratory Director

Tuesday, January 02, 2007

Date

Report Date: 02-Jan-07

Page 1 of 1

-2814764406

6120560

MERCURY ENVIRONMENTAL SERVICES QA/QC REPORT

ANALYTE	MB mg/L	LCS %REC	LCSD %REC	RPD	CCB mg/L		CCV %REC	MS %REC	MSD %REC	RPD
Arsenic	< 0.002	94	94	0.7	< 0.00		91	76,4	77.2	1.04
Barium	< 0.002	105.0	105	0.43	< 0.00		101	65.2	67.7	3.8
Cadmium	< 0.001	109.4	110.9	1.32	< 0.00		107	70.9	72.0	1.5
Chromium	< 0.001	109	107	2.50	< 0.00		103	70.0	72.2	3.0
Lead	< 0.002	106.1	109.2	2.90	< 0.002		107	67,7	71.9	6.1
Mercury	< 0.0002	101.0	97.5	3.53	< 0.000		102.0	,		
Selenium	< 0.024	108.1	91.4	16.7	< 0.024		87	64.9	61.8	5.0
Silver	< 0.001	110	109	0.91	< 0.00	1	104	73.4	75.6	3.06
ANALYTES	METHOD 8021B	MB mg/L		MS %REC	MSD %REC	RPD		CCV %REC		
Danner		~ 0 00E		87.6	90.3	2.04		107.6		
Benzene		< 0.005 < 0.005		78.6	90.3 84.1	3.04 6.76		107.6 105.2		
Toluene		< 0.005		95.4	100.6	5.31		103.2		
Ethylbenzene m+p Xylene		< 0.005		87,6	92.6	5.55		101.8		
o-Xylene		< 0.005		90.8	95.8	5.36		101.4		
o rejone		0,000		••,•	33.3	0.02				
SURROGATE	SURROGATE SPIKE RECOVERY FOR BTEX % REC									

SURROGATE SPIKE RECOVERY FOR BTEX	% REC
4-Bromofluorobenzene	106,6

Standards Utilized:

BTEX: 5-point calibration utilizing working standards derived from neat solution of benzene, toluene, ethylbenzene, m-xylene, p-xylene and o-xylene.

Key to QA Abbreviations

MS=Matrix Spike RPD=Relative Percent Deviation LCS=Laboratory Control Standard CCB=Continuing Calibration Blank

MSD=Matrix Spike Duplicate MB=Method Blank **CCV=Continuing Calibration Verification** %Rec=Percent Recovery

Signaturez Holland D. Gilmore / Laboratory Director

January 01, 2007

EPAHO105001928

COMPANY NAME: (BILL TO:)	Equiron	megte				MI	ES		- C	HAI	N OF	CUST	rody	1-800-771-4MES (281) 476-4534
COMPANY ADDRESS:						Merc	ury E wy. 225	nuir	onm	enta	Ser	vice	s	Fax (281)-476-4406
COMPANY ADDRESS: CITY CONTACT PERSON'S NAME: 694771	Brauch	ATE	ZIP				Wy. 225 ARAMET						7 7	REMARKS
CONTACT PERSON'S PHONE: 2/7-9/7	5737	2 FAX#: _			_ 4		7	$\overline{}$	\neg		$\overline{}$		NEAS /	DIRNAROUND TIME
YOUR PROJECT NO .: YOUR P.O. N: Enterprise-mauvel GR-Fut-ma PROJECT ADDRESS:	enter text	YOUR PR	OJECT NAM	IE:	-7/	W	4/					NUMBER OF COME	\$ / g	DETECTION LIMITS
PROJECT ADDRESS:	Lilling		14.900		-// _^				/	/		MER OF	PRESERVATIONS	SPECIAL LIMITS REQUIRED Yes No
YOUR SAMPLE DESCRIPTION	GRAB/COMP.	DATE	TIME	MATE		1 6						NCA	E.	
Pipeline pigs	6	12-22	10,00	se scale	10 /	\ <u>\</u>								or include separate sheet detailing requirements.
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	PED BY:		6	COURIER Signmure)	<u></u>			REC (Sign	CEIVED !	The state of	V			10 M.3
Sample Remainder Disposal					☐ Reques	t Lab To	Dispose (Of All S	ample F	lemaind	iers	1	5	
					(Signature) _							(Date)	

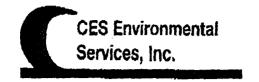
CES Environmental Services, Inc.

4904 Griggs Rd. Houston, TX 77021 Phone: (713) 676-1460

Fax: (713) 676-1676

Fax Transmittal

Total Num	nber of Pages (Including cover sheet):	
Date:	1-3-07	, , , , , ,
To: <u>4</u>	verley Heefner	713-803-4048
	Enterprise	
· C	ary Brauckman ES Environmental Services, Inc. obile: (713) 417-5737	
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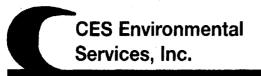


4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1676

Waste Profile Re-Certification Form

CES Waste Approval #:	HOU-1999				
Customer:	Enterprise Pro	oducts (Manvel)			
Waste Generator:	Enterprise Pro	oducts (Manvel)			
Waste Stream Name:	Foam pigs				
Expiration Date:	1/8/2009				
As per our waste analysis plan, CES Environmental Services. Inc. requires recertification of all approved wast profiles on an annual basis. The purpose of this form is to confirm that no changes have been made in the generation process of the aforementioned waste stream and that the waste stream remains classified as non-hazardous as per 40 CFR 261.3.					
		in the aforementioned waste stream and the process generating and the aforementioned CES Waste Approval Number: (Check			
No changes, please recei	nify.	11 Analysis is NOT required for recertification.			
11 Please send new profile has changed.	as waste stream	The following analysis is required for recertification. Please sumbit results of the following tests.			
Wesley E. He Customer Name Newley Wesley Signature	efner mer	TCLP Metals TCLP Volatiles TCLP Semi-volatiles Reactivity Corrosivity Ugnitability			
Company / Title	COOVERS OP	LIC V			
Date Date					

Economy Polymens 1954
Prot# 1954



Waste Pre-Acceptance/Approval Letter

Date 12/8/2006

Dear Traci Fisher

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1954

Generator: Economy Polymers **Address:** 435 E Anderson

Houston, TX 77047

Waste Information

Name of Waste: Econo-Wet-L9
TCEQ Waste Code #: CESQ1191

Container Type:

Detailed Description of Process Generating Waste:

Out-of-date material

Color: brown

Odor: acidic

pH: na

Physical State:

Incompatibilities: na

Safety Related Data/Special Handling:

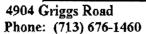
na

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

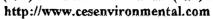
Thank you,

Matt Bowman, President CES Environmental Services, Inc.

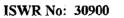
CES Environmental #1954 Services, Inc.



Houston, TX 77021 Fax: (713) 676-1676



TCEQ Industrial Solid Waste Permit No: 39048 U.S. EPA ID No: TXD008950461





SECTION 1: Gener	near Information						
Company:	Economanon Economanon	Polymers					
Address:	1132 5 134	decido					
City, State, Zip:	1122	TX 77047					
Contact:	Was a Col Ch	budbary	Title:				
Phone No:	713-723-	8016	Fax No:				
24/hr Phone:		3910					
U.S. EPA I.D. No:	TYXX	6					
State LD.			SIC Code:				
20202 AP.	CIZORE	<u> </u>					
SECTION 2: Billing	Information -	iame as Above	,				
Company:	MG Secvi						
Address:	0707 Har	ea Eaupt					
City, State, Zip:	non-tamer	WISHEXT, Y		· .			
Contact:	roc. Pishe	Title:	OFFice mar				
Phone No:		Fax No:	936-482-20	7			
			10.7.34				
SECTION 3: Genera	al Description of the	Waste					
Name of Waste:	bono-Wet-	(4					
Detailed Description	of Process Generat	ng Waste: OHOF de	ste water c	યા			
			<u></u>				
Physical State:	🞾 Liquid	☐ Sludge [_ Powder				
	☐ Solid	Filter Cake	Combination	•			
•	•	A 1					
Color: Brawn	C	odor: Acidic					
•	00-	$a \rightarrow$					
Specific Gravity (wat	cer=1): <u>.98</u> 5	Density: (S) 1bs/gal					
Layers :	Single-phase	Multi-phase					
			•				
Container Type:	Drum (M	☐ Tote ☐] Truck [Other (explain)			
Container Size:	55			• •			
		Ng Pagina (1997)					
		· D					
Frequency:	☐ Weeldy	☐ Monthly 🛛	Quarterly \square	Yearly			
Number of Units (con	tainers): 10	Other:					
Texas State Waste Co	nda No:	limano a 1 con u	Δ.				
CESQ 1191							
		Not Regu					
Class: NA	UN/N	NIA U	PG: NA	RQ: NA			
14/1			- 11 \	 			
, , , , , , , , , , , , , , , , , , ,							
Flash Point	PHUO	Reactive Sulfides	Reactive Cyanides	Solids			
23/9,t	00	mg/l	mg/l	0 %			
Oil&Grease	TOC mg/l	Zinc		ickel D mg/l			
∪ m2/l	U mg/I	mg/l	<u>()</u> mg/l	$\mathcal{O}_{mg/l}$			

COMPUNENTS TABLE	Concentration	Units
The waste consists of the following materials	Ranges are acceptable	or %
thoxylates	90-95	~/O
"is later	5-10	90
		1
		
		
		
CTION 5: Safety Related Data		
	stront place avalate	
the handling of this waste requires the use of special protective equip	ment, piease explain.	
		
ECTION 6: Attached Supporting Documents		
st all documents, notes, data, and/or analysis attached to this form as	part of the waste approval packa	ge.
<u>505</u>	F	
TOTAL A TOTAL AND		
CCTION 7: Incompatibilities	•	
ease list all incompatibilities (if any):		
<u>44-</u> 4		
ECTION 8: Generator's Knowledge Documentation		
70 2 20 11 01 Ochica neos y aniowicingo poconicamentos		
aboratory analysis of the hazardous waste characteristics, listed belov	v, WAS NOT PERFORMED base	d upon t
nerator knowledge:		
CLP Metals:		
CLP Metals: CLP Volatiles: CLP Semi-Volatiles: cactivity: crosivity:		
CLP Semi-Volatiles:		
eactivity:		
orrosivity:		
nitability:		
CTION 9: Generator's Certification		
ne information contained herein is based on 🔀 generator knowledge and	Var applytical data. I haveby one	rific alon
tached description is complete and accurate to the best of my knowledge	dge and ability to determine that n	nay ulat o delibe
missions of composition properties exist and that all known or suspected	I hazards have been disclosed. I ce	rtify tha
sted are representative of all materials described by this document.		
	- Italia	
thorized Signature:	Date:	
inted Name/Title: Rea Melian	en e	
		فستر
S USE ONLY (DO NOT WRITE IN THIS SPACE)		
S USE ONLY (DO NOT WELLE IN THIS SITE OF		
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Rejected

Approved

1954

Date: 12-6-06

1

Approval Number: ___

SECTION 10: Waste Receipt Classification Under 40 CFR 437 Is this material a wastewater or wastewater sludge? \(\square\) YES If 'Yes', complete this section. PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE. Metals Subcategory: Subpart A Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment Oils Subcategory: Subpart B Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes Organics Subcategory: Subpart C Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources

(1)	If the	waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess values listed below, the waste should be classified in the metals subcategory.
	Chron Coppe	ium: 0.2 mg/L nium: 8.9 mg/L cr: 4.9 mg/L l: 37.5 mg/L
(3)		waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or above any of the values listed above, the waste should be classified in the organics subcategory.
		Metals Subcategory
		Oils Subcategory
	□.	Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



>onon

MATERIAL SAFETY DATA SHEET

PRODUCT NAME:

Econo-Wet-L9 (SURFACTANT)

REVISION DATE:

May 5, 2005

TELEPHONE NUMBER:

713-723-8416

** IN A CHEMICAL EMERGENCY CALL ECONOMY: 800-231-2066

Address:

Manufacturer: Economy Polymers

435 E. Anderson Rd.

Houston, Texas 77047

** FOR INDUSTRIAL USE ONLY **

Section 1 - Product Information

Chemical Name: Blend of Alcohol Ethoxylate & Ethoxylated Ester

Chemical Family: Nonionic Linear Surfactants

Formula: Mixture

DOT Hazard Class: None

DOT Proper Shipping Name: Not Regulated

Section II Physical Data

Flash Point:

>212°F

Water Solubility:

Soluble

Boiling Point:

>212°F

pH range:

ND

Color:

clear brown liquid

Odor:

Acidic (sour)

Physical state:

liquid

Specific Gravity

0.985

% Volatiles

7.0

Vapor Density

ÑΑ

Density (lbs/gal.)

8.2

Section III - Hazardous Ingredients

Material

Cas#

Percent

TLV(units)

Hazard

1) Ethoxylates

Mixture

90-95

NA

irritant

Section IV - Fire & Explosion Hazard Data

Flash Point: >212°F

LEL: ND

UEL: ND

Extinguishing Media: Water spray, Foam, CO2, Dry Chemical

Special Fire Fighting Procedures: Wear a self contained breathing apparatus to avoid toxic furnes.

Slippery when wet.

Fire & Explosion Hazards: None

Economy Polymers & Chemicals

P.O, Box 450246 Houston, TX 77245-0246 USA Toll free: (800) 231-2066 Phone: (713) 723-8416 Fax: (713) 723-1845 URL: www.EconomyPolymers.com

E-mail: economy@economypolymers.com



Economy® POLYMERS & CHEMICALS

*Additional information will be provided in a medical emergency to qualified medical personnel.

Section v - Health Hazard Data

Threshold Limit Value (TLV) for Product: None Established. Does product contain any OSHA, NTP or IARC Carcinogens? No

First Aid

Eyes: Flush thoroughly with running water at least 15 minutes. Consult physician

Skin: Wash with soap and water. Launder contaminated clothing before wearing again. Consult a

physician if irritation persists

Inhalation: If affected, move to fresh air.

Ingestion: Do not induce vomiting. Give large amount of water to dilute. Get immediate medical

attention.

Nature of Hazard (Physiological Effects)

Eyes: Severe irritation (burning sensation, tearing, redness, blurred vision) due to sulfonic acid

contact

Skin: Prolonged contact causes redness, edema, or chemical acid burns.

Inhalation: None currently known

Ingestion: Corrosive to tissues. May cause burns to mouth, gastrointestinal tract

Acute Overexposure: Severe irritation of the exposed areas and other effects as noted above

Chronic Overexposure: No data available Nature of Hazard (Physiological Effects)

TOXICITY DATA

Eye Contact: A PRIMARY ROUTE OF ENTRY. No data is avaliable

Skin Contact: A primary route of entry. No data is available

Inhalation: No data is available Ingestion: No data is available

Special Precautions: Individuals with skin or respiratory diseases should not be exposed to this

product unless properly protected.

Section VI - Reactivity Data

Stability: Stable Hazardous Polymerization: Will not occur

Conditions to avoid: None known

Incompatibility (Materials to Avoid): Strong oxidizers, Liquid Acids, Strong Bases

Hazardous Decomposition Products: CO. CO₂

NFPA RATINGS: HEALTH 1,

FLAMMABILITY 1, REACTIVITY 0

HEALTH

HIMS RATINGS: FLAMMABILITY 1, REACTIVITY 0,

A .4 ---- A ... -

Section VII - Spill or Leak Procedures

- *Stop flow and contain spill by diking, sandbags, etc.
- *Eliminate all ignition sources.
- *Incinerate using afterburner and scrubber

Economy Polymers & Chemicals

P.O. Box 450246
Houston, TX 77245-0246
USA Toll free: (800) 231-2066
Phone: (713) 723-8416
Fax: (713) 723-1845
URL: www.EconomyPolymers.com
E-mail: economy@economypolymers.com



Economy ® ROLYMERS & CHEMICALS

- *Use skin protection (as per section VIII)
- *Absorb on inert material and scraps up or shovel into drums
- *Observe federal spill and water quality regulations.

Section VIII - Special Protection Information

Air Exposure Recommendations

Gas, Fumes, Mists

Special Thermal

Normal Use

Exceeds TLV

Spray Application

General Ventilation

General Ventilation

General Ventilation

4*

4*

4*

*Respiratory protection codes:

- 1. None Needed
- 2. Particle-removing, air purifying respirator (Dusk Mask)
- 3. Gas and vapor-removing, air purifying respirator (Canister)
- 4. Full face mask, positive pressure-demand type (Air Supplied)

Eye Protection: Goggles, Face Shield

Skin Protection: Neoprene Gloves, Nitrile Gloves

Other Protective Equipment: Chemical Resistant Apron, Shoes

Section IX - Special Precautions

Wear eye and skin protection. Store in dry place. Keep containers closed when not in use. Store in cool area with good ventilation. Keep away from strong oxidizers

Section X - Miscellaneous

Is product RCRA regulated? No

Are all ingredients listed in the TSCA Inventory? Yes

Ingredients regulated by the Clean Air Act or the Clean Water Act: None

Environmental Effects: No data is available, but the aquatic toxicity is probably in the moderate range.

SARA Classification: This product may contain trace amounts of ethylene oxide (CAS# 75-21-8), aceytaldehye (CAS# 75-07-0), and 1,4 dioxane (CAS# 123-91) which are potential carcinogens. However, none of these are present in the SARA or OSHA reporable quantity of 0.1%. In fact, above compounds are in trace quantity of less than 1ppm

EPA Classification: None

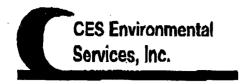
Comments: Wear proper clothing and protection to avoid contact with eyes and skin.

DOT INFORMATION: Not restricted by DOT, CANADIAN TDG, ADR, ICAO/IATA, IMDG.

LABELS: NONE

Economy
Polymers & Chemicals

P.O. Box 450246
Houston, TX 77245-0246
USA Toll free: (800) 231-2066
Phone: (713) 723-8416
Fax: (713) 723-1845
URL: www.EconomyPolymers.com
E-mail: economy@economypolymers.com

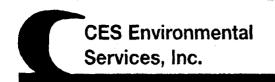


4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1676

Waste Profile Re-Certification Form

CES Waste Approval #:	<u>HOU-1954</u>					
Customer:	Economy Polym	<u>ners</u>				
Waste Generator:	Economy Polyn	ners				
Waste Stream Name:	Econo-Wet-L9					
Expiration Date:	12/6/2008					
As per our waste analysis plan, CES Environmental Services, Inc. requires recertification of all approved waste profiles on an annual basis. The purpose of this form is to confirm that no changes have been made in the generation process of the aforementioned waste stream and that the waste stream remains classified as non-hazardous as per 40 CFR 261.3. Generator hereby certifies that the components in the aforementioned waste stream and the process generating this waste stream remain the same as when issued the aforementioned CES Waste Approval Number: (Check Appropriate Box)						
☐ No changes, please recen	tify.	Analysis is NOT required for recertification.				
Please send new profile has changed. Changed. Customer Name Signature	as waste stream	☐ The following analysis is required for recertification. Please sumbit results of the following tests. ☐ TCLP Metals ☐ TCLP Volatiles ☐ TCLP Semi-volatiles ☐ Reactivity ☐ Corrosivity				
President Company/Title		Ignitability * MSDS attached to original profile				
Date						

Greens Bayou Pipe Mill, LP Prof# 1955



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/12/2006

Dear Sergio Marquez

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1955

Generator: Greens Bayou Pipe Mill, LP

Address: 13935 Industrial Road

Houston, TX 77015

Waste Information

Name of Waste: Non-hazardous cooling water

TCEQ Waste Code #: 00061192

Container Type:

Detailed Description of Process Generating Waste:

Water used to cool carbon steel pipes after heating and bending

Color: varies

Odor: none

pH: 4-8

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

CES Environmental Services, Inc.

CES Environmental Services, Inc.

CES Environmental Service

4904 Griggs Road Houston, TX 77021
Phone: (713) 676-1460 Fax: (713) 676-1676
http://www.essenvironmontal.com
TCEQ Industrial Solid Waste Permit No: 39048
U.S. EPA ID No: TXD008950461 ISWR No: 30000

SECTION 1: Gene		- 1814 FR				
Company:	Circens Bayou Pl					
Address:	13935 Industrial					
City, State, Zāp:	Houston, TX 772	29				
Contact: Phone No:	Sergio Marquez 713-450-7753		Titles	Project Coordinator		
		·	Yax No:	713-450-7815		
24/hr Phone:	B32-671-3916			•		
U.S. EPA I.D. No:	TXR000063917			NA		
Smm L.D.	86876		SIC Code:	1071		the artificial control of the contro
SECTION 2. Butte	- I-Co	Same as Above				All Marketines and the second second
Соглужий:	Greens Buyou Pipe	Mill				
Address:	PO Box 24307	HUM.				
City, State, Zin:	Houston, TX 77229	A 107				
Contact:	Sergio Murguez	Title:	Project Coon	tingtor		Pormatiad
Phone No:	832-671-3916	Fax No:			٠,	Pormetted
	032-077-9910	- 11/1/100	112-30-701		:	Formatted
SECTION 3: Gener	ral these ricetion of th	he Waste			:.	Formatted
A CONTRACTOR CONTRACTO	. 20 Para [1112.112.11.1.1.1.1.1.1.1.1.1.1.1.1.1.1	- I KAND			*. 4	Formatted
Name of Waste: No						Formeltad
Detailed Description	a of Process Genera	ling Waste: Water used to	cool purbun steel	pipes after heating and hending	•	
	Anna				, , ,	Fermitted
Physical State:	" Tidniq	Sludge	D Powder			Formetted
	☐ Solld	Filter Cake	Combinatio	n e		Formatted
						Formane4
Color: Varies		Odor: None				Formatted
Specific Crystle (u.s.	see-The T	Density: 8.34 lbu/gul				Formatted
Sheeting Giving (w)		incusula . Drawing				Formatted
I.avares	M Sinulantan	Multi-phase				Fermetted
	- 23 Artific Prints	M Sycusums			• • • • •	Formafted
Container Type:	[] Deum	Tota	Truck	Other (explain)		بسيبيو سيستب فالتناف
Container Size:	ــــــــــــــــــــــــــــــــــــــ	J~J _ A! 2!5	3-5000	" " [T] Silia ledhumi		Formultad
C. Olicamies, 2126;		-	3-0004			Pormatical
		_				Formatted
Liedheucki -			M Gnuttieli.	Nearly		Parmatted
Number of Units (co		Other:			ì	formates
Tease Sinte Waste C	ade No:	0006 1192				
Proper U.S. DOT SI	Inning Name:	Non-RCRA Non-I	XXT Regulated W	usic Water Wester Water		Formatted
	-	·				Formattus
Class; No.	UNA	VA: Na	PC: N	KQ: Na	<u> </u>	Formating
						Formutted
Flash Point	l all	Reactive Suifides	Repetive C	yapides Solids	 1	Formatted
>200	8-8	Qmp/i	Qmg/	0.5%	<u></u> \	िराताभूपञ्जी
Oil&Grease	TOC	Zinc	Copper	Nickej		Formatted
Name/	Name/I	Ome/I	Omg/I	Omig/i		Formatted
		· · · · · · · ·				
			. 卷		{	Formatted

CES Environmental Service

SECTION 4:	Physical and	Chamles	Data

COMPONENTS TABLE	Concentration	Uralta	
the waste consists of the following materials	Ranges are accaptable	or %	
Cooling Water	95-99	140	
On .	0-1	20	
		1	

	SECTION'S: Safety Related Data	• '
	If the handling of this waste requires the use of special protective equipment, please explain,	
	Variation of the second of the	
	SECTION 6: Attached Supporting Documents	
1	List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package,	Formatted
	Process Annyledge	
	SECTION 7: Incompatibilities	garage with the
Į	Plense list all incompatibilities (If any): None	Formatted
	SECTION & Generator's Knowledge Documentation	
	250 110 c of Other and 2 reministrates 500 miletimoral	
	Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED hased upon the following generator knowledge:	
	TCLP Metalic X	
	TCLP Moralis: X TCLP Volatiles: X TCLP Semi-Volatiles: X Corresivity: X Ignitability: X	
	TCLP Semi-Volatiles: X	
	Reactivity: X Correstvity: X	
	lynitahilin:	
	SECTION 9: Generator's Certification	
	The information contained herein is based on Si generator knowledge and/or amounted data. I hereby certify that the above and	
	attached description is complete and apparate to the best of my knowledge and oblights to determine that no deliberate or willful	
	armissions of composition properties exist and that all known of suspected hazards have been disclosed. I certify that the materials	
	tested are representative of all materials closeribed by this document,	
1	Authorized Signature: WE May Date: 12/08/08	Formatted
Ì		Formulted
ı	Printed Name/Title: Sergid Marausz/ Project Coardinator	Formatted
,		Formatted
	CHE LINE ONLY DO NOT MALTE IN THIS SPACES	
١	Compliance Officer: Additional Information:	
١	Date: 17-11-06 Approved Rejected	
1	Approval Number 1955	
	Approval Number: 1999	
ı		
	SECTION 10; Waste Receipt Classification Under 40 CPR 437	
	Is this material a wastewater or wastewater sludge? 🗵 YES 💢 NO	

If 'Yes', complete this section.

P	リアムぐだ	CHECK THE APPROP	RIATE ROS. 15 NO	APPROPRIATE CATEGORY	CO TO THE KEST PACE

Metals Subcategory Subport A Spent electroplating baths and/or sludges Metal finishing rinse water and aludges Chroniste Waster Air pollution control blow down water and sludges Apent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Wusto neide and bases with or without metals Cleaning, rinning, and surface preputation solutions from electropluting or phosphating operations Vibraton debutting wastervate Alkaline and ucid solutions used to clean metal parts or equipment Olis Subenteropy: Subpart B Used oils Oil-water civilisions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Dilge water Rinso/wash waters from petroleum sources Interceptor wastes Off-appreision tucks Underground storage remediation waste Tank clean-out from petroleum or only sources Non-contact used giveois Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes Organics Subcategory: Subpart C .. Landfill leachale Contaminated groundwater clean-up from non-petroleum sources Solvent-hearing wastes Off-specification organic product Still hattoms Byproduct waste glycol Wastewater from point washes Wastewater from adhesives and/or epoxies formulation Westewater from organic chemical product operations Tank clean-out from organic, non-petroloum sources

- (1) If the waste contains oil and gresse at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
- (2) If the waste contains oil and grease less than 100 mg/L. and has any of the pollutante listed below in concentrations in excess of the values listed below, the waste should be classified in the matels subautegory.

C-08-	-2006	11:00	CES	Environmental	Service		713 676 1676	P.05
	Chromi Copper	in: 0.2 mg/L um; 8.9 mg/L 4.9 mg/L 37.5 mg/l.						
(3)	If the w nickel a	aste contains oil and great bove any of the values liste	less the	n 100 mg/l nod does not the water should be class	have concentrations sitted in the organics	of cadmium, chromium subcategory,	n, ecoper, or	
		Metals Subcategory						
		Oils Subeningory		•				
	×	Organics Subcategory				-		

SECTION 11: Additional Instructions

If you cannot determine the correct subunitegory in Section 9 and you did not furnish data for the concentration of Cadmium, Citomium. Copper, Nickel, and Oil and Groupe, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

TOTAL P.05

Enterpoise Products 1956 Prot# 1956



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/12/2006

Dear Marty Goodpasture/Joe Hawkins

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1956

Generator: Enterprise Products Operating (Substation-Texas City)

Address: 700 14th Street South

Texas City, TX 77590

Waste Information

Name of Waste: Used oil with water

TCEO Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

Oil from product dispensing units and engine motor pad

Color: brown

Odor: oil like

pH: neutral

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

110

4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676 # 1956

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Gen	erator Information				en e
Company:	Enterprise Produc	ts Operating (Texas Ci	ty Terminal)		er e
Address:	700 14th Street So	uth			
City, State, Zip:	Texas City, TX 7	7590			
Contact:	Joe Hawkins		Title:	OPERATION	S
Phone No:	409-945-6622		Fax No:		
24/hr Phone:	CES-713-676-146	60			
U.S. EPA I.D. No:	TXD000838698				
State I.D.	36472		SIC Code:	NA	
•					
	ing Information -		•		
Сотрапу:	Enterprise Products	Operating			
Address:	11750 Almeda	<u> </u>			
City, State, Zip:	Houston, TX 77045				
Contact:	Marty Goodpasture	Title		IS SUPERVISO	<u>R</u>
Phone No:	832-347 - 4527	Fax l	No: 713-803-2250)	
	•	•			
SECTION 3: Gen	eral Description of th	e Waste			
	·			•	
Name of Waste: U					
Detailed Description	on of Process General	ting Waste: Oil from p	roduct dispensing uni	ts and engine me	otor pad
Whendard Canan	⊠ Timesid	· Claudana	[m] Damelon		
Physical State:	∠ Liquid ✓ Liquid Liquid	Sludge	Powder		
	Solid Solid	Filter Cake	Combination	n	
Color: <u>Brown</u>	•	Odor: <u>oil like</u>			
		• *			
Specific Gravity (w	vater=1): <u>.85-1.00</u>	Density: 8 lbs/gal		•	• •
		:			
Layers:	Single-phase	Multi-pha	asc		
		•		•	
Container Type:	☐ Drum	Tote	🛛 Truck	Otl	her (explain)
Container Size:		•	200 gal		•
			<u></u>	5	_
Frequency:	Weekly	Monthly	Quarterly	∑ Ye:	arly
Number of Units (c	containers): 1	Other:		The state of the s	High gas
Texas State Waste	Code No: N	A-Recyclable Material			
Proper U.S. DOT S	Shipping Name:	Non PCDA-No	on-DOT Regulated Ma	terial	
-					
Class: NA	UN/N	A: NA	PG: NA	L	RQ: NA
	•				
				4 5	(C. 1:).
Flash Point	рН	Reactive Sulfides	Reactive C	yanides	Solids
>140	neutral	Omg/l	Omg/l	Nickel	<2%
			I f 'owner	I NICKAL	
Oil&Grease >1500mg/l	TOC >1500mg/l	Zînc Omg/l	Copper Omg/I	Omg/l	

PAGE 01/09

ENTERPRISE

8326761250

12/08/2006 16:43

SECTION 4: Physical and Chemical Data

The waste consists of the following materials			Ranges are acceptab	le or %
Motor Oil	:		50-90	%
Water (Rain Water)	· · · · · · · · · · · · · · · · · · ·		50-90	%
Anti-freeze			0-5	%
		erani er		
	!			

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. Level D

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. Chlor-D-Tec

SECTION 7: Incompatibilities

Please list all incompatibilities (if any): oxidizers

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals: X
TCLP Volatiles: X
TCLP Semi-Volatiles: X
Reactivity: X
Corrosivity: X
Ignitability: X

Authorized Signature:

SECTION 9: Generator's Certification

The information contained herein is based on \boxtimes generator knowledge and/or \boxtimes analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Printed Name/Title: MARTY GOODPASTURE, OPERATION	IS SUPERVISOR	
CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer: Polyher Claude Approved Rejected Approval Number: 1956	Additional Information:	

2

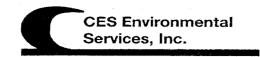
	<u>S</u>	ECTION 10: Waste Receipt Class	sification Under 40 CFR	<u>437</u>			
	Is	this material a wastewater or waste	water sludge? [YES	⊠ NO			
*	If	'Yes', complete this section.	•				
	P	LEASE CHECK THE APPROPRI	ATE BOX. IF NO APPR	OPRIATE CATE	GORY, GO TO	THE NEXT PAGE	•
	Mei	als Subcategory: Subpart A	and the second of the second o				
		Spent electroplating baths and/or	sludges	en de la companya de Mangana de la companya de la company			
	H	Metal finishing rinse water and si Chromate wastes	_ ,		***************************************		
		Air pollution control blow down Spent anodizing solutions	water and sludges	1	e e e e e e e e e e e e e e e e e e e		
		Incineration wastewaters	and the second		e e e e e e e e e e e e e e e e e e e	gaj sa saka 192	e e la companya di santa di s
	H	Waste liquid mercury Cyanide-containing wastes greate	er than 136 mg/l				
	Ħ	Waste acids and bases with or win	thout metals				
	H	Cleaning, rinsing, and surface pre Vibratory deburring wastewater	paration solutions from ele	ectroplating or pho	osphating operati	ions	
•		Alkaline and acid solutions used	to clean metal parts or equi	ipment	•		
	<u>Oils</u>	Subcategory: Subpart B	:				•
		Used oils	•			•	
		Oil-water emulsions or mixtures	• *				•
		Lubricants Coolants	:	•			
		Contaminated groundwater clean-	up from petroleum sources	S			
	H	Used petroleum products Oil spill clean-up	t .				
		Bilge water	•				
	H	Rinse/wash waters from petroleum Interceptor wastes	n sources				
		Off-specification fuels	xxxacta:				
	H	Underground storage remediation Tank clean-out from petroleum or					
		Non-contact used glycols Aqueous and oil mixtures from pa	urts cleaning operations				
		Wastewater from oil bearing paint					
	Orga	nics Subcategory: Subpart C	•				
		Landfill leachate					•
		Contaminated groundwater clean-	up from non-petroleum sou	urces			
	H	Solvent-bearing wastes Off-specification organic product					
* * * * * * * * * * * * * * * * * * * *		Still bottoms Byproduct waste glycol					الوري مستحدد مستداد الاراد ال
	H	Wastewater from paint washes	e et proces			t in the second	
	R	Wastewater from adhesives and/or Wastewater from organic chemica					
		Tank clean-out from organic, non-				•	•
,			:				
			:				
			† · · · · · · · · · · · · · · · · · · ·				
	1		e de la companya de l	3			**************************************
The state of the s	<u> </u>	*		· · · · · · · · · · · · · · · · · · ·			
·	0/E0	BAGE PAGE	ENTERPRISE		8326761250	00P IE:43	17/80/7T

12/08/2006 16:43 8326761250

(1)	If the	waste contains oil and grea	se at or	in excess of 100 mg/L	, the waste	should be cla	assified in the oils sub-	category.
(2)		waste contains oil and great values listed below, the wa					sted below in concentr	ations in excess
		ium: 0.2 mg/L nium: 8.9 mg/L						* - ±
		er: 4.9 mg/L l: 37.5 mg/L					en e	
(3)		waste contains oil and grea above any of the values lis						ium, copper, or
		Metals Subcategory						i na militarii na m
		Oils Subcategory	***					we fitting to
		Organics Subcategory	• !					

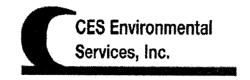
SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



Sample Evaluation Form

Sample ID# <u>00</u>	1076			Date /2	=1 <u>6</u> 1 <u>06</u>
Please Complete This Section	on				
Generator / Customer Name	Enter	1130	TX CI	· / 5	
Name or Type of Waste :	Entery Oil/u	safra	(
Process Generating Waste :). S. Come 18 5 5 1 1 1 20 . C
Process Generating Waste: "Ulf water From Number of Samples:	Jun Eng	ルシピ ライア ibmitted By :	125		agicar jami
Analysis To Be Completed :	64	10r-11	1-tect	-	
Turnaround Time :					
Other:	13-4	angan dan disalaman pangangan pangan ang			
	0				
	(Lab Use	Only)		
Sample Results :	5560 (CHLOR	o te	CT	
Suggested Method of Trea	itment :	ACID	+ 46	PAT	
Suggested Price Range :	.16	gallon			
Sample Results Reported	to	<u>B</u> _			
Test Completed By :			<u> </u>	ie:	pm



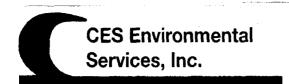
CES Waste Approval #: HOU-1956

4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1676

Waste Profile Re-Certification Form

		nav
Customer:	Enterprise Product	s Operating (Substation-Texas Ci
Waste Generator:	Enterprise Product	s Operating (Substation-Texas City)
Waste Stream Name:	Used oil with water	<u>.</u>
Expiration Date:	12/11/2008	\checkmark
profiles on an annual basis. generation process of the af hazardous as per 40 CFR 26 Generator hereby certifies the	The purpose of this form orementioned waste stream 1.3. that the components in the esame as when issued the	Services, Inc. requires recertification of all approved waste is to confirm that no changes have been made in the m and that the waste stream remains classified as non-aforementioned waste stream and the process generating aforementioned CES Waste Approval Number: (Check Analysis is NOT required for recertification.
Please send new profile a		The following analysis is required for recertification.
has changed.	as waste stream	Please sumbit results of the following tests.
Customer Name MA Joseph Signature EPCO Opera Company / Title	tions Superus	☐ TCLP Metals ☐ TCLP Volatiles ☐ TCLP Semi-volatiles ☐ Reactivity ☐ Corrosivity ☐ Ignitability
/2-08-08 Date		

Entenprise Products 1957



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/12/2006

Dear Marty Goodpasture/Joe Hawkins

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1957

Generator: Enterprise Products Operating (Substation-Texas City)

Address: 700 14th Street South

Texas City, TX 77590

Waste Information

Name of Waste: Oily rags and booms and pads

TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

Rags, pads, and booms used to maintain oil leaks from engine pad and for soaking up product oil spills at the dispensing station.

Color: various

Odor: oil like

pH: neutral

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

CES Environmental Services, Inc.

CES Environmental Services, Inc.

DA

4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676 #1957

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Gene	erator Information	•			
Company:	Enterprise Product	s Operating (Te	xas City Ter	minal)	
Address:	700 14th Street Sou		<u></u>		
City, State, Zip:	Texas City, TX 77	7590			
Contact:	Joe Hawkins			Title:	OPERATIONS
Phone No:	409-945-6622			Fax No:	
24/hr Phone:	CES-713-676-1460)		-	
U.S. EPA I.D. No:	TXD000838698			-	
State I.D.	36472	~,		SIC Code:	NA
				- 512 2040,	
SECTION 2. Billio	ig Information – 🔲 S	luma ac Abovo			
Company:	Enterprise Products (•	
Address:	11750 Almeda	·			
City, State, Zip:	Houston, TX 77045				
Contact:	Marty Goodpasture	-;	Title:	ODED ATION	IS SUPERVISOR
Phone No:		:			
Fhone No:	832-347-4527	<u> </u>	Fax No:	713-803-2250	<i>)</i>
	. <u>.</u> _		•		
SECTION 3: Gene	ral Description of the	Waste			
	ly Rags and Booms an				· · · · · · · · · · · · · · · · · · ·
			gs, Pads and	<u>Booms used to r</u>	naintain oil leaks from engine pad and for
soaking up product o	oil spills at the dispensi	ng station.			
				7	
Physical State:	Liquid Liquid	☐ Sludge	L	Powder	
	🛛 Solid	Filter Ca	ike [Combinatio	n
Color: Various	O	dor: oil like			
			•		
Specific Gravity (w	ater=1): 1 2	Density: 9 ll	ns/gal		•
Epolino Ciario, (m.		; 2011310 , 2 x	, gu		
T + 1/1/1-1-1	5 7 1 α/		*** . *		
Layers:	Single-phase	Mu	lti-phase		
					<u> </u>
Container Type:	🔀 Drum	Tote		Truck	Other (explain)
Container Size:	<u>55 qal</u>				
					·
Frequency:	Weekly	: Monthly	y 🛛	Quarterly	
Number of Units (co	ontainers): <u>1</u>	Other: _			
Texas State Waste (Code No: NA	-Recyclable Ma	aterial		•
and the second second second second		! "		<u> </u>	
Proper U.S. DOT S	hipping Name:	Non-RCR	CA; Non-DO	T Regulated Ma	iterial
Class: NA	UN/NA	NA NA		PG: NA	RQ: NA
	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			
		:			
Flash Point	pH	Reactive Sulfic	dec	Reactive Cy	yanides Solids
>140	neutral	Omg/l		Omg/l	100%
Oil&Grease	TOC	Zinc	т	Copper	Nickel
>15 <u>00</u> mg/l	>1500mg/i	Omg/l		Omg/I	Omg/l

1

SECTION 4: Physical and Chemical Data

The waste co	nsists of the following materials	Ranges are acceptable	or %
Oily Rags, Pads and Boom		100	
	·		

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. Level D

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. Chlor-D-Tec on the free oily water

SECTION 7: Incompatibilities

Please list all incompatibilities (if any): oxidizers

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous	waste characteristics,	listed below, WAS NO?	r performed	based upon t	he following
generator knowledge:	:				

TCLP Metals:	Х
TCLP Volatiles:	X
TCLP Semi-Volatiles:	X
Reactivity:	X
Corrosivity:	X
Ignitability:	X

Authorized Signature:

SECTION 9: Generator's Certification

The information contained herein is based on \boxtimes generator knowledge and/or \boxtimes analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Printed Name/Title: MARTY GOODPASTURE, OPERATION	IS SUPERVISOR
CES USE ONLY (DO NOT WRITE IN THIS SPACE)	
Compliance Officer: Puble Though	Additional Information:
Date: 12-11-06 Approved Rejected	REC
Approval Number: 1957	

2

Date: 12-08-06

100	The second secon	But a surface to the	
•	SECTION 10: Waste Receipt Classification Under 40 CFR	R 437	
	Is this material a wastewater or wastewater sludge? YES	⊠ NO	
	If 'Yes', complete this section.		
	PLEASE CHECK THE APPROPRIATE BOX. IF NO APPR	ROPRIATE CATEGORY, GO TO THE N	EXT PAGE.
M	etals Subcategory: Subpart A		
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from e Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equ		
<u>o</u>	ls Subcategory: Subpart B		
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum source Used petroleum products Oil spill clean-up Bilge water Rinsc/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes	ces	
<u>O</u>	ganics Subcategory: Subpart C		
	Landfill leachate Contaminated groundwater clean-up from non-petroleum so Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Westewater from adherings and/or engyies formulation	sources	
	Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources		

(1)	If the	waste contains oil and grea	se at or in	n excess o	f 100 mg	L, the waste	should be c	lassified	in the oils sub	category.	
(2)	If the of the	If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.									
	Chron Coppe	nium: 0.2 mg/L nium: 8.9 mg/L er: 4.9 mg/L d: 37.5 mg/L									
(3)		waste contains oil and great labove any of the values li								mium, copper,	OI
, t = 15		Metals Subcategory		•			and the second s			en de la companya de	
		Oils Subcategory	1								
		Organics Subcategory	:						•		

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

4

Enterprise Products 11750 Almeda Rd. Houston, TX 77045 P.O. Box 450678, Houston, TX 77245 Phone # 713-803-2230 Fax # 713-803-2250

FACSIMILE TRANSMITTAL SHEET

		ne No: 832 347 4527	
. ⁷ e	To:		· •
•	Number of Pages (incl	uding this sheet):	
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The information contained in this FACSIMILE is confidential and/or privileged. This FACSIMILE is intended to be reviewed initially by the individual named above only. If the reader of this transmittal sheet is not the intended recipient or a representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this FACSIMILE or the information contained herein is prohibited. If you have received this FACSIMILE in error, please notify the sender immediately by telephone at the number shown under the sender's name above, and return the FACSIMILE by mail to the sender at the address shown above. Thank you.

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PAGE 09/09

ENTERPRISE

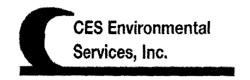
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Sample Evaluation Form

Sample ID # <u>00074</u>	Date $\frac{2}{2}I \frac{4}{5}I \frac{0.6}{5}$
Please Complete This Section	
Generator / Customer Name: Finter 132	TX Cits
Name or Type of Waste: 01/watra	
Process Generating Waste: Oil From Conful Oil Grafe From Englise 54	rugatet luse Dispensacionis
Number of Samples : / Submitted By :	25
Analysis To Be Completed : CG/cr-//	2-tect
Turnaround Time :	
Other: Prize	
(Lab Use	Only)
Sample Results : PASSED CHLOR	o tect
Suggested Method of Treatment :	+ HEAT
Suggested Price Range : <u>\$ 16 ga</u> llon	
Sample Results Reported to	
Test Completed By: AC Date: \2 / 07/	010 Time: 1.00 Pm



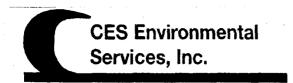
CES Waste Approval #: HOU-1957

4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1676

Waste Profile Re-Certification Form

	K. A.	2011						
Customer:	Enterprise Products Operating (Substation-Texas Ci	Almer						
Waste Generator:	Enterprise Products Operating (Substation-Texas City)							
Waste Stream Name:	Oily rags and booms and pads							
Expiration Date:	12/11/2008							
As per our waste analysis plan, CES Environmental Services, Inc. requires recertification of all approved waste profiles on an annual basis. The purpose of this form is to confirm that no changes have been made in the generation process of the aforementioned waste stream and that the waste stream remains classified as non-hazardous as per 40 CFR 261.3. Generator hereby certifies that the components in the aforementioned waste stream and the process generating this waste stream remain the same as when issued the aforementioned CES Waste Approval Number: (Check Appropriate Box)								
Z No changes, please recer	rtify. Analysis is NOT required for recertification.							
☐ Please send new profile a has changed.	as waste stream The following analysis is required for recertification. Please sumbit results of the following tests.							
Customer Name MA Goodges Customer Name MA Goodges Signature Epco Opera Company / Title 12-08-28 Date	☐ Corrosivity ☐ Ignitability Etians Sypervision							

Coastal chemicals co 1958
Rot # 1958



Waste Pre-Acceptance/Approval Letter

Date 12/11/2006

Dear Erika Frederick

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1958

Generator: Coast Chemical Co., LLC (Abbeville, LA Facility)

Address: 3520 Veterans Memorail Drive

Abbeville, LA 70511

Waste Information

Name of Waste: N/H Polymers - Bulk

TCEQ Waste Code #: OUTS2071

Container Type:

Detailed Description of Process Generating Waste:

Washing out of process tanks

Color: amber

Odor: mild

pH: 4-10

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

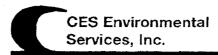
Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

CES Environmental Services, Inc.



4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676 # 1958

http://www.cesenvironmental.com TCEQ Industrial Solid Waste Permit No: 39048

U.S. EPA ID No: TXD008950461

ISWR No: 30900

SECTION 1: Gene	rator Information				
Company:	Coastal Chemical (
Address:	3520 Veterans Me			· · · · · · · · · · · · · · · · · · ·	
City, State, Zip:	Abbeville, LA 705	11		· · · · · · · · · · · · · · · · · · ·	
Contact:	Carl DuPuy		<u> </u>	Title:	
Phone No:	337-892-1140			Fax No:	337-892-1189
24/hr Phone:	337-892-1140			-	
U.S. EPA I.D. No:	LAD034145235				•
State I.D.	_D0022_		····	SIC Code:	
SECTION 2: Billin	ig Information – 🔲 S	Same as Above		· · · · · · · · · · · · · · · · · · ·	
Company:	Pollution Control Ind	ustries			
Address:	4343 Kennedy Aveni	ie .			
City, State, Zip:	East Chicago, IN		************************		
Contact:	Erika Frederick	Title	2:	Outsourcing N	1anager
Phone No:	800-388-7242	Fax	No:	219-397-6411	
SECTION 3: Gene	ral Description of the	Waste			
Name of Waste: N					
Detailed Descriptio	n of Process Generat	ing Waste: Washing	out of r	process tanks	
Dhaminal Cases	⊠ Liouid	Sludge		Powder	
Physical State:		= -	<u>ـــا</u>		
•	Solid	Filter Cake	L	Combination	
Color: Amber	(Odor: <u>mild</u>			
Color. Militar		Ador. <u>mna</u>			
Specific Gravity (w	ater=1):	Density: 8 lbs/gal			
	·····				
Layers:	Single-phase	Multi-ph	iase		
		,			
Container Type:	☐ Drum	Tote	Ø	Truck	Other (explain)
Container Size:		1016	لايكا		Other (explain)
Comainer Size:	<u> 1</u> 50.00			<u>Vacuum</u>	·
	•				
Frequency:	☐ Weekly	☐ Monthly		Quarterly	X Yearly
Number of Units (c	ontainers):	Other: \	aries		
Texas State Waste	·				
	<u> </u>	MSZ071	a= DO	Regulated Mat	ranial
Proper U.S. DOT S	nipping ivame;	Non-KCKA, N	011-00	Regulated ivial	
Class: N/A	un/n	A: N/A		PG: N/A	RQ: N/A
Flash Point	pΗ	Reactive Sulfides		Reactive Cy	anides Solids
>200F	4-10	Omg/i		<u>O</u> mg/l	<u>_0</u> %
Oil&Grease	TQC	Zinc		Copper	Nickel
Omg/l	7/5000 mg/1	mg/l		mg/l	mg/l

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE	Concentration	Units
The waste consists of the following materials	Ranges are acceptable	or %
WATER	80-90	0/0
DIETHANOLAMINE	1-10	9,6
TRIETHANOLAMINE	1-10	9/0
ETHYLENE GLYCOL	1-10	9/6

SECTION 5: Safety Related Data	1
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lf	the handling	of this	waste requires t	the use of special p	rotective equipment	, please explain.
	$\mathcal{L}_{\mathcal{A}}$		And the second second	tion of the second		the second second

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package.

- Alam MSDS

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

- None

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals:	٧
TCLP Volatiles:	1
TCLP Semi-Volatiles:	4
Reactivity:	4
Corrosivity:	X
Ignitability:	7

Authorized Signature:

SECTION 9: Generator's Certification

The information contained herein is based on generator knowledge and/or analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Printed Name/Title: Caul A. Dupuy Plan	ut Manager
CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer: _ Pollow Hay Lage	Additional Information:
Date: 12-11-06 Approved Rejected	
Approval Number: 1958	

Date: 12-8-06

<u>S1</u>	ECTION 10: Waste Receipt Classification Under 40 CFR 437	
Is	this material a wastewater or wastewater sludge? YES NO	
If	'Yes', complete this section.	
Pi	LEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.	
Met	uls Subcategory: Subpart A	
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions	•
	Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l	
	Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater	
	Alkaline and acid solutions used to clean metal parts or equipment	
<u>Oils</u>	Subcategory: Subpart B	
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources	
	Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes	
<u>Org</u>	unics Subcategory: Subpart C	
	Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol	
	Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources	

(1)	ii the	waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess values listed below, the waste should be classified in the metals subcategory.
	Chron Coppe	ium: 0.2 mg/L nium: 8.9 mg/L or: 4.9 mg/L l: 37.5 mg/L
(3)		waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or above any of the values listed above, the waste should be classified in the organics subcategory.
		Metals Subcategory
÷.		Oils Subcategory
		Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

POLLUTION CONTROL INDUSTRIES

Please indicate which PCI Facility(s) are being utilized for this Profile

East Chicago, IN 46312 800-388-7242

Millington, TN 38053 888-724-8366

Page 1 of 2 Profile Number 235483B

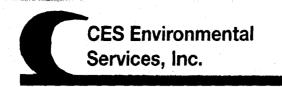
Poliution Control Industries

GENERATORS WASTE PROFILE SHEET
PLEASE PRINT IN INK OR TYPE
FORM TO THE PCI APPROVALS DEPARTMENT AT 1-219-397-6411

PLEASE FAX COMPLETED FORM TO THE P	
PLEASE CHECK IF GENERATOR IS A NO LANDFILL CUS	
A. GENERATOR INFORMATION:	BILLING INFORMATION:
Generator Name: COASTAL CHEMICAL CO. LLC	Billing Name: PCI
Facility Address: 3520 VETERANS MEMORIAL DRIVE	Billing Address: 5485 VICTORY LANE
City: ABBEVILLE State: LA Zip: 70511	City: MILLINGTON State: TN Zip: 38053
Customer Name: CARL DUPUY	Billing Contact Name:
Customer Phone: (337) 892-1140	Billing Phone: (901) 353-5291
Customer Fax: 337-892-1189	Billing Fax:
Generator USEPA/Federal ID #: LAD034145235	P.C.I. Sales Rep: STEIFFEL
Generator State ID # (If applicable):	
Is the Generator a "Conditionally Exempt Small Quantity Generator a "Conditional Action Generator a "Condition G	nerator?" Yes N No
Generator's S.I.C. Code(4 Digit):	
B. WASTE STREAM INFORMATION:	
Name of the Waste: N/H POLYMERS - BULK	
Original Process Generating Waste WASHING OUT OF PRO	DCESS TANKS
Is a representative sample provided? Yes N No	
Is there any Analytical attached? Yes N No	Other information? Yes N No
C. GENERAL CHARACTERISTICS:	
AMBER Color: Physical state @ 70 F	Phases Btu/Lb
Odor: %Liquid%Gas(Aerosol)	X Single Layer X <3,000
None%Sludge%Gas(Other)	3,000-5,000
X Mild %Solid %Other	5,000-10,000
Strong %Powder	>10,000
PH: <2.0 2.0-4.0 X 4.0 to 10.00 10.	0 to12.5 >12.5
Liquid Flashpoint: <73 F 73 to 99 F 100 to 1	139 F 140 to 200 F X >200 F None
Specific Gravity: % Total Halogens	
D. CHEMICAL COMPOSITION: Total of Maximum concer	ntration must be > or = to 100%.
Constituents Min% Max%	6 Constituents Min% Max%
WATER 80 90	
DIETHANOLAMINE 1 10	
TRIETHANOLAMINE 1 10	
ETHYLENE GLYCOL 1 10	
E. OTHER WASTE STREAM INFORMATION:	
Is this waste a "USED OIL" per 40CFR PART 279?	Yes_x_No
If "Yes", does the total halogen content exceed 1,000 ppm	
If "Yes", can you identify the "Chlorinated Constituent"	
If "Yes", can you rebut the presumption that this ma	
Does the Waste have any of the following characteristics? (P	lease check all that apply)
OxidizerOrganic PeroxideWater Reac	tiveAir ReactivePyrophoric Dioxin
RadioactiveInfectious Waste Hexachrome	e Carcinogen Etiological Aerosols
Explosive Shock Sensitive Undergoes	hazardous Polymerization Pathogen Cylinder
Does the Waste contain any of the following?	
None or Less Than or Actual	None or Less Than or Actual
None PCB's <50ppm ppm	None Sulfides <50ppm ppm
None Cyanides <50ppm ppm	None Phenolics <50ppm ppm
"PCI will not accept benzene-containing hazardous waste (as o	defined by 40 CFR 61.341) from a chemical manufacturing plant,
coke by products recovery plant, petroleum refinery and owne	rs and operators of hazardous waste treatment, storage and
disposal facilities."	
Does the waste represented by this profile contain benzene?	Yes x No
If "Yes", please list concentrationppm	
Is the Waste subject to the benzene waste operations NESH,	AP? (40CFR Part 61, Subpart FF) Yes x No
Answer "Yes" if your waste contains benzene and if the SIC of	code from your facility is one of the following:
	334 2835 2836 2841 2842 2843 2844 2851
	393 2896 2899 2911 3312 4953 4959 9511

			Page 2 01 2
E. OTHER WASTE STREAM INFORMATION CONTIL	IUED:	O) :	Yes x No
Is the Waste subject to RCRA Subpart CC controls? (40	UFR 200 SUBPART C	C) 260 40 269 7\	x Yes No
If "No", does the Waste meet the organic LDR exemp	MON FOR UHUS? (40 UF	R 200.40, 200.1)	X Yes No
if "No", does the Waste contain <500ppmw volatile o	ganic(VO)? (40 CFR 2)	00 SUBPART CC)	Yes x No
Does the Waste contain any Class I or Class II ozone-di	pieting substances:		Yes x No
If PCB'S are present, is the waste regulated by TSCA pe	140 CFR /01?		103_ <u>X</u> 140
F. SHIPPING INFORMATION:			
Method of Shipment:	(-all aff have vacuum ha	x. etc) Lab Pac	ik
	roll-off box, vacuum bo se specify size)	Lab i ac	ory .
		Other (please specify)	
Drums (specify Size) 85 55 30		tion (Example: Glass contain	ers in a drum)
	DUARUCOMBINA	tion (Example: Glass contain	oro in a aranny
Other (Please Describe)			- 194. Tuning - 194. 1971
Shipping Frequency: Number of Units Per Month	Quarter Year	Other	**
G. R.C.R.A. CHARACTERIZATION:			
Is this a USEPA "Hazardous Waste" per 40CFR 261.3?			Yes x No
If "No", Please skip to section H.		•	
Is this a "Universal Waste" per 40CFR part 273?			Yes No
Is this a "Characteristic Waste"?			Yes No
If "yes" is it: D001 Ignitable D002 Corrosi	ve D003 Reactiv	re	
Characteristic for Toxic Metals: D004 D009	D006 D007	D008D009D01	0D011
Characteristic for toxic organics D012 thru D043 (pl	ease list all that apply)		
Is this an "F" or "K" Listed waste or mixed with one?			YesNo
If "Yes", Please list all applicable code(s) from 40CFR2	61.31 and/or 261.32		
Is this a commercial chemical product or spill cleanup th	at would carry a "U" or	"P" waste code under	
40CFR 261.33 (e) or (f)?			YesNo
If "Yes", Please list all applicable waste code(s):			<u> </u>
			No.
Is this a state regulated waste?			YesNo
If "Yes", Please list all codes			
H. DOT SHIPPING INFORMATION			Van v No
Is this a U.S. Department of Transportation (USDOT) Ha			Yes_x_No
Proper Shipping Name per 49 CFR 172.101 Hazardous NON RCRA, NON DOT REGULATED MATERIAL	Waterials Table.		
"Reportable Quantity" (if any) lbs			
Hazard Class or Division: UN/NA #	Packing Group		
Is this a Poison Inhalation hazard?	acking Croup	· · · · _	Yes No
If "Yes," please indicate Hazard Zone: Zone A	Zone B	Zone C Zone D	Other
List two primary hazardous constituents WATER, ETHY			
I. GENERATOR CERTIFICATION:			
I hereby certify that the above and attached description is complete a	nd accurate to the best of my	knowledge and ability. No deliberate	e or willful omissions of
composition or properties exist and that all known or suspected hazar	ds have been disclosed. I als	so certify that the obtained sample is	
waste material described above and give PCI permission and consen	to make amendments and c	orrections.	
Name(print): CARL DUPUY		Title:	
Signature:		Date:	
THIS SPACE FOR PC	APPROVALS DEPAR	TMENT ONLY	
Date Received / /	Approvers initials	;	Profile Number
Process Code I	Price Trice	Trans	235483B
Proper Waste Codes			
			<i>D</i>
Proper Dot Shipping Name			<u> </u>
Hazard Class UN NA Packi	g Group II	iiaii	
NOS Descriptors			
Yard InstructionRun Sales Analytical	MSDS	Attached	
No Landfill Customer Run N/H metals per generator	See A	ttached Analytical	
No Sample Approval Run Ox. Screen on Incoming	Run C	omp. On Incoming	
Form Code W System Code H			

1961 Century Asphalt



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/14/2006

Dear Otis Matthews

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1961

Generator: Century Asphalt and Materials (Mayo Shell Facility)

Address: 922 Mayo Shell Road

Galena Park, TX 77547

Waste Information

Name of Waste: Hydrochloric acid product

TCEQ Waste Code #: Product

Container Type:

Detailed Description of Process Generating Waste:

Unused product

Color: clear

Odor: pungent

pH: 1.1-2.02

Physical State:

Incompatibilities: strong bases, metals, metal oxides, amines, carbonates, and other

alkaline materials, cyanides, sulfides, formaldehyde

Safety Related Data/Special Handling:

safety goggles, plastic gloves

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



1961

CES Environmental Services, Inc.

4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021

Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948
U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Gener		Transport of the control of the co		er en
Company:	Century Asphalt			
Address:	922 Mayo Shell Road		· · · · · · · · · · · · · · · · · · ·	
City, State, Zip:	Galena Park, TX 775	47	·	
Contact:	Wade Cook		Title:	
Phone No:	281-303-1387	· · · · · · · · · · · · · · · · · · ·	Fax No:	
24/hr Phone:		· · · · · · · · · · · · · · · · · · ·		
U.S. EPA I.D. No:	TXCESQG			
State I.D.	CESQG		SIC Code: NA	
			·	
SECTION 2: Billing	Information - San	ne as Above		
Company:	Century Asphalt and Ma	aterials		
	5206 West Road			
	Baytown, TX 77521			
Contact:		Title:		
Phone No:	<u> </u>	Fax No:		
CECTION 2 C	1.Th			
SECTION 3: Genera	al Description of the V	vaste		
NY CANA TE I	i tito i kolimo ito a			
	Irochloric Acid Product			
Detailed Description	of Process Generating	Waste: Unused product		
TO	N7 - 1		l n	
Physical State:	☐ Liquid [Sludge	Powder	
	Solid [Filter Cake	Combination	
Color: Clear	Ode	or: pungent		
Specific Gravity (wat	er=1): 1.05	Density: lbs/gal		
Specific Gravity (wat	LI 1). <u>1.05</u>	Density 103/5a1		
T	⊠ C:ll	Marie: allega		
Layers:	⊠ Single-phase	Multi-phase		·
			· -	
Container Type:	⊠ Drum	Tote	Truck L	Other (explain)
Container Size:	년0gal			·
				· · · · · · · · · · · · · · · · · · ·
Frequency:	Weekly	Monthly	Quarterly	✓ Yearly
Number of Units (con	itainers): 1	Other:	•	
Texas State Waste Co				
Proper U.S. DOT Shi	pping Name:	Hydrochloric Acid		
Class: 8	UN/NA:	UN1789	PG: II	RQ:
				· · · · · · · · · · · · · · · · · · ·
				1
Flash Point	pH R	eactive Sulfides	Reactive Cyanide	s Solids
>200		Amg/I	NAmg/I	NA%
Oil&Grease	TOC		Copper	Nickel
NAmg/I	NAmo/I		NAmo/I	NAmg/I

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE The waste consists of the following materials	Concentration Ranges are acceptable	Units or %
Hydrochloric Acid	0-50	%
Water	0-75	%
proportion of the second secon		A STATE AND ADDRESS OF STREET
		1
er i engangengen aller galergen et skultsvalge i slam i taat kun i traatike maat i i slam taat om taat i		of the second

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. safety goggles, plastic gloves,

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. **MSDS**

SECTION 7: Incompatibilities

TCLP Metals: TCLP Volatiles:

TCLP Semi-Volatiles:

Printed Name/Title: Wade Cook

Please list all incompatibilities (if any):

strong bases, metals, metal oxides, hyrdroxides, amines, carbonates and other alkaline materials, cyanides, sulfides, formaldehyde

SECTION 8: Generator's Knowledge Documentation

X

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

Corrosivity: Ignitability:	<u>X</u> <u>X</u>				
SECTION 9: Gen	erator's Certifi	cation			
			nerator knowledge and	 •	

omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document. Authorized Signature: (Jale Cal

CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer: Lobbar Dhand	Process Facility Information:
Date: 12-12-06 Approved Rejected	Product
Approval Number: 196	

Date: 12-12-06

Is this material a wastewater or wastewater sludge? YES If 'Yes', complete this section.	⊠ NO
If 'Yes', complete this section.	
CONTROL OF THE STATE AND THE PART OF THE STATE OF THE STA	والمستوان والمست
PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROP	RIATE CATEGORY, GO TO THE NEXT PAGE.
Metals Subcategory: Subpart A	ingen er en
Spent electroplating baths and/or sludges	
Metal finishing rinse water and sludges	
Chromate wastes	
Air pollution control blow down water and sludges	
Spent anodizing solutions	
Incineration wastewaters	
Waste liquid mercury	
Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals	
Cleaning, rinsing, and surface preparation solutions from electr	onlating or phosphating operations
Vibratory deburring wastewater	opiding of phosphating operations
Alkaline and acid solutions used to clean metal parts or equipm	ent
Oils Subcategory: Subpart B	
Used oils	
Oil-water emulsions or mixtures Lubricants	
Coolants	
Contaminated groundwater clean-up from petroleum sources	
Used petroleum products	
Oil spill clean-up	
Bilge water	
Rinse/wash waters from petroleum sources	
Interceptor wastes	
Off-specification fuels	
Underground storage remediation waste	
☐ Tank clean-out from petroleum or oily sources ☐ Non-contact used glycols	
Aqueous and oil mixtures from parts cleaning operations	
Wastewater from oil bearing paint washes	
Organics Subcategory: Subpart C	
Landfill leachate	
Contaminated groundwater clean-up from non-petroleum source	es
Solvent-bearing wastes Off-specification organic product	and the second substitution in the second
I I Still hottoms	
Still bottoms Byproduct waste glycol	
Byproduct waste glycol	
Byproduct waste glycol Wastewater from paint washes	

2)	If the waste contains oil and grease less than 100 m of the values listed below, the waste should be class	g/L, and has any of the pollutants listed below in concentrations in sified in the metals subcategory.
	Cadmium: 0.2 mg/L	
	Chromium: 8.9 mg/L	
	Copper: 4.9 mg/L	
	Nickel: 37.5 mg/L	ne de la companya de La companya de la companya del companya de la companya de la companya del companya de la companya del la companya de la
2)		g/I and door not have concentrations of codmium abramium com-
3)		g/L, and does not have concentrations of cadmium, chromium, copete should be classified in the organics subcategory.
3)	If the waste contains oil and grease less than 100 m nickel above any of the values listed above, the was	
3)	If the waste contains oil and grease less than 100 m nickel above any of the values listed above, the was	
3)	If the waste contains oil and grease less than 100 m nickel above any of the values listed above, the was	

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

MSDS Number: **H3886** * * * * * Effective Date: 02/16/06 * * * * * Supercedes: 05/07/03

MSDS

Phillipsburg, NJ 08865

Material Safety Data Sheet

From: Mallinckrodt Baker, Inc. Mallinckrodt 222 Red School Lane CHEMICALS



CHEMTREC: 1-800-424-0300

National Response in Camda
CANUTEC: 613-646-6666

Outside U.S. and Canada Chemtrec: 703-527-3987

NOTE: CHEMTREC, CANUTEC and National Response Gerner emergency numbers to be used only in the event of chemical emergencies envolving a spill, leak, line, exposure or accident involving chemicals.

24 Hour Emergency Telephone: 908-959-2151

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

HYDROCHLORIC ACID (10%-33%)

1. Product Identification

Synonyms: This MSDS applies to the concentrated standard used to make laboratory solutions and any solution that contains more than 10% but less than 33% Hydrochloric acid. For diluted product, see MSDS for Hydrochloric Acid (less than 10%).

CAS No.: 7647-01-0 **Molecular Weight:** 36.46

Chemical Formula: HCl in H2O

Product Codes:

J.T. Baker: 0323, 0327, 0365, 4654, 4657, 5618, 5619

Mallinckrodt: 2608, 2625, H151, H168, V035

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous	
Hydrogen Chloride	7647-01-0	10 - 33%	Yes	
Water	7732-18-5	67 - 90%	No	

3. Hazards Identification

Emergency Overview

POISON! DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED OR INHALED.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 3 - Severe (Poison)

Flammability Rating: 0 - None Reactivity Rating: 2 - Moderate

Contact Rating: 4 - Extreme (Corrosive)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD;

PROPER GLOVES

Storage Color Code: White (Corrosive)

Potential Health Effects

Inhalation:

Corrosive! Inhalation of vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract, and in severe cases, pulmonary edema, circulatory failure, and death.

Ingestion:

Corrosive! Swallowing hydrochloric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. May cause nausea, vomiting, and diarrhea, and in severe cases, death.

Skin Contact:

Corrosive! Can cause redness, pain, and severe skin burns. Concentrated solutions cause deep ulcers and discolor skin.

Eye Contact:

Corrosive! Vapors are irritating and may cause damage to the eyes. Contact may cause severe burns and permanent eye damage.

Chronic Exposure:

Long-term exposure to concentrated vapors may cause erosion of teeth. Long term exposures seldom occur due to the corrosive properties of the acid.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or eye disease may be more susceptible to the effects of this substance.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion:

DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:

Not considered to be a fire hazard. May react with metals or heat to release flammable hydrogen gas.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Water or water spray. Neutralize with soda ash or slaked lime.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Structural firefighter's protective clothing is ineffective for fires involving hydrochloric acid. Stay away from ends of tanks. Cool tanks with water spray until well after fire is out.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Neutralize with alkaline material (soda ash, lime), then absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

J. T. Baker NEUTRASORB® acid neutralizers are recommended for spills of this product.

7. Handling and Storage

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of direct sunlight and away from heat, water, and incompatible materials. Do not wash out container and use it for other purposes. When

diluting, the acid should always be added slowly to water and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. When opening metal containers, use non-sparking tools because of the possibility of hydrogen gas being present. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

For Hydrochloric acid:

- OSHA Permissible Exposure Limit (PEL):
- 5 ppm (Ceiling)
- ACGIH Threshold Limit Value (TLV):
- 2 ppm (Ceiling), A4 Not classifiable as a human carcinogen

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded and engineering controls are not feasible, a full facepiece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Clear, colorless liquid.

Odor:

Pungent odor.

Solubility:

Infinitely soluble.

Density:

1.05 @ 15C (59F)

pH:

For HCL solutions: 0.1 (1.0 N), 1.1 (0.1 N), 2.02 (0.01 N)

% Volatiles by volume @ 21C (70F):

100

Boiling Point:

101 - 103C (214 - 217F)

Melting Point:

No information found.

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

A strong mineral acid, concentrated hydrochloric acid is highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.

Conditions to Avoid:

Heat, direct sunlight.

11. Toxicological Information

Hydrochloric acid: Inhalation rat LC50: 3124 ppm/1H; Oral rabbit LD50: 900 mg/kg. Investigated as a tumorigen, mutagen, reproductive effector.

Ingredient	NTP Known	Carcinogen Anticipated	IARC Category
Hydrogen Chloride (7647-01-0)	No	No	3
Water (7732-18-5)	No	No	None

12. Ecological Information

Environmental Fate:

When released into the soil, this material is not expected to biodegrade. When released into the soil, this material may leach into groundwater.

Environmental Toxicity:

This material is expected to be toxic to aquatic life.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: HYDROCHLORIC ACID

Hazard Class: 8 UN/NA: UN1789 Packing Group: II

Information reported for product/size: 200L

International (Water, I.M.O.)

Proper Shipping Name: HYDROCHLORIC ACID

Hazard Class: 8 UN/NA: UN1789 Packing Group: II

Information reported for product/size: 200L

15. Regulatory Information

\Chemical Ingredient	Inventory Status	- Part	1\	TSCA			Australia
Hydrogen Chloride Water (7732-18-5)	(7647-01-0)			Yes Yes	Yes Yes	Yes Yes	Yes Yes
\Chemical	Inventory Status	- Part	2\			 anada	

http://www.jtbaker.com/msds/englishhtml/h3886.htm

-12/12/2006

Ingredient		Korea	DSL	NDSL P	hil.
Hydrogen Chloride (7647-01-0) Water (7732-18-5)		Yes Yes	Yes Yes		Yes Yes
\Federal, State & Internation Ingredient	_	302-		SARA 3 Chemic	
Hydrogen Chloride (7647-01-0) Water (7732-18-5)	5000 No	500* No	Yes No	N	
\Federal, State & Internation Ingredient	al Regulation	. •		-TSCA 8 (d)	
Hydrogen Chloride (7647-01-0) Water (7732-18-5)	5000 No	-	No	No No	
Chemical Weapons Convention: No TS SARA 311/312: Acute: Yes Chronic: Reactivity: No (Mixture / Liqu	Yes Fire:	No No Pi	CDTA:	Yes : No	

Australian Hazchem Code: 2R Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 3 Flammability: 0 Reactivity: 0

Label Hazard Warning:

POISON! DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED OR INHALED.

Label Precautions:

Do not get in eyes, on skin, or on clothing.

Avoid breathing vapor or mist.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

Label First Aid:

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases call a physician.

Product Use:

Laboratory Reagent.

Revision Information:

No Changes.

Disclaimer:

Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

Prepared by: Environmental Health & Safety Phone Number: (314) 654-1600 (U.S.A.)

1962AM Distributing Company Prof # 1962



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/15/2006

Dear Jory Woods or Cesar D'Agostino

Thank you for choosing CES Environmental Services, Inc. for you waste-disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1962

Generator: Jam Distributing Co.

Address: 7010 Mykawa

Houston, TX 77033

Waste Information

Name of Waste: Recyclable oily water

TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

Unused oil mixed with rainwater and from flushing out product oil trucks after delivery.

Color: vries

Odor: none

pH: na

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc. Address:

Contact!

Phone No.

Company: City, State, Zipi Contact:

Phone No:

Plant Point >160

Oll&Grease >100000mg/

24/hr Phone: U.S. EPA I.D. No: State LD.

City, State, Zip:

4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

Fax Not

SIC Code:

D_Powder

Combination

Reactive Cyanides Qmg/l

http://www.coscovironmental.com TCEQ Industrial Solid Waste Permit No: 39048 U.S. EPA 1D Not TXD008950461 ISWR No: 30!

177021 176-1676 19048 No: 30900	#1962	DB
		<u>.</u>
Terminal Manay 713-844-7745	ger	- - -
NΑ		-
		-
. from Aushing o	ut product <u>vil trycks</u> ulter	7

SECTION 3:	Caperal Descri	otion of the Waste

[X] Liquid

Solld

IIq Na

TOC Named

SECTION 1: Generalor Jammetton
Company: JAM Distribution

7010 Mykawag

713-841-7733

832-473-0159

SECTION 2: Billing Information - K Same as Above

Houston, TX 77033

Jory Woods' Could D'Angostino

Name of Waste: Recyclable Oily Weser
Detailed Description of Process Generaling Waste: Unused oil mixed with tain water, from fi deliveo.

D Sludge

Pliter Cake

Resettive Sulfides ...

Title:

Faz No:

l	Color: Yages	Odor: None			
ŀ	Specific Gravity (water-1): 9-1	Density 7.5-8.3 Persual			
ĺ	1.avers: [Single-phase	Multi-phase	•		
ļ	Container Type: Prum Container Size:	. □ . Jete	Truck S 5-8000	Other (exhinin)	
İ		Others	,Quarterly 🔲 🔲	Nearly	
	Proper U.S. DOT Shipping Names	Recyclable Oily Water			
	Class NA UNIT	A; NA	PG: NA	RQ: NA	

Р, 03

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SECTION 4: Physical and Chemical Date

COMPONENTS TABLE	Contentration	Linite
The waste consists of the following muterials	Ranges are neceptable	OF %
Unused Olis	- 1 2·10 · · · · · · · · · · · · · · · · · ·	%°
Water	90-98	3.6

SECTIONS	s Sufate	Related	Dete

If the handling of this waste requires the use of special protective equipment, please explain, percl DPE

SECTION 6: Attached Supporting Documents

List off documents, notes, data, and/or analysis attached to this form as part of the veste approval package. None

SECTION 7: Incompatibilities

Please flis all incompatibilities (if ally):

SECTION 8: Constants | Knowledge Documentation

Laboratory analysis of the aszardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals: TCLP Volatiles: TCLP Semi-Volatiles: Resetivity: Corroskity: Igaitability:

SECTION 9: Generator's Certification

The information contained herein is based on D generator knowledge and/or D analytical data. I hereby contify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful emissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Vafpdulsig diadalnie:	1 Julies	Pale: 12/08/08
Printed Namo/litter	Jorn woods Term	linal MANAGER

Ces use Only (DO NOT WHITE IN THIS SPACE) Compliance Officer: Police Compliance Officer: And Annual Compliance Officer: Police C	
Date: 12-13-06 Approved Rejected	distance information:
Approval Number: 1962	

NECTION ID: Waste Receipt Classification Under 40 CFR 437

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. Is	this material a wastewator or wastewater studge? 🛭 YES	ום אס		
16	Yes complete this section.			
Pl	EASE CHECK THE APPROPRIATE BOX. IF NO APP	ROPRIATE CATE	GORY, GO TO TH	e n'ent page.
Met	nh Subcaterore: Subpart A			
	Sport electroplating baths and/or studges Motal finishing rims water and studges Chromale wastes Air pollution control blow down water and studges Spont anodizing solutions Incineration wastewaters Wasta tiquid mercury Cyanide-containing wastes greater than 136 mg/l Wasta acids and bases with or without motals Cleaning, maxing, and surface preparation solutions from a Vibratory deburning wastewater Altraline and solutions used to clean metal parts or eq		osphating operation	;
OUX	Subcaregory: Subpart B			
	Check oils Oil-water emulsions of microres Lubricants Coulants Coulants Contaminated groundwater clean-up from petroleum sound Used petroleum products Oil spill clean-up Bitge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-rut from petroleum or oily sources Non-contam used givools Aqueous and oil mixtures from parts cleaning operations Watewater from oil bearing paint washes	in () () () () () () () () () (
	unica Suberneeves! Subpart C Lundfill leachate Contaminated groundwater elean-up from non-peroleum solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste give of Wastewater from point washes Wastewater from adhesives undur epoxics formulation Wastewater from organic chemical product operations	YOURCEY		

(1) If the waste compains off and greace at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.

Tank clean-out from organic, non-petroleum sources

(2) If the waste emitting oil and greate less than 100 mg/L, and has any of the pollutaris hated below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

1

Chromism: 6.9 mg/L

Copper: 4.9 mg/L

Nickel: 37 5 mg/L

131 If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmitim, chromium, cupper, of nickel above any of the values listed above, the waste should be classified in the organics subuntegory.

| Metals Subcategory

| Otta Subcategory

| Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not Armish data for the concentration of Cudmium. Chromium. Coppar, Nickel, and Oll and Chrome. CES will send offsite to a commercial laboratory a sample to determine these conventuations. This will be print to acceptance. The generator will be responsible for the cost of the analysis.

TOTAL P.07

CES Environmental Services. Inc.

4904 Griggs Rd.

Houston, TX 77021 Phone: (713) 676-1460

Fax: (713) 676-1676

Quotation

For: Jam Distributing Co.

Attn: Jory Woods

Phone: 713-844-7745
Fex: 713-844-7745

Date: December 8, 2006

Description of Work to be Performed:

Transportation and recycle oily water from the Jam Distributing facility in Houston, TX.

Estimated Costs for Completion of Work:

Transportation

\$75/load

Recycle Oily Water

.07/gal

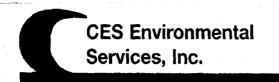
Fuel Surcharge

\$12.00

^{**}Payment terms are net 30 days.

^{***}Thank you for your interest in CES Environmental Services.

Heaty Service 1963 Rott 1963



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/15/2006

Dear Kevin White

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1963

Generator: Hertz Service Pump & Compressor

Address: 1110 Howard St.

Deer Park, TX 77536

Waste Information

Name of Waste: Used desiccant TCEO Waste Code #: Recycle

Container Type:

pallet

Detailed Description of Process Generating Waste:

Dries air to reove moisture from air going into machinery (air is ambient)

Color: white

Odor: none

pH: na

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

none

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

CES Environmental Services, Inc.

select

CES Environmental Services, Inc.

H= 10/2

4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: General	ator Information	۸ .			
Company:	Hertz Service	RUMP + GAMPIELIER	,		
Address:	1110 Howar				
City, State, Zip:		· 71536		-	
Contact:		elst	Title:		
Phone No:	281-418-6394		Fax No:		
24/hr Phone:					
U.S. EPA I.D. No:	N/H				
State I.D.	NM		SIC Code:		
SECTION 2. Dilling	Information [7] So.	no on Abovo			
	Information - Sai				
Company:	School Environ				
Address:	223 Mcort				
City, State, Zip:	Hen. Jr.	<u>77625</u>	<i>C</i> 3 1		
Contact:	Mark white	Title:	Em Sole		
Phone No:	713-675-7376	Fax No:	713-672 4	1530	· · · · · · · · · · · · · · · · · · ·
SECTION 3: Genera	al Description of the V	Vaste			•
					Drys air to remove miss for air
Name of Waste: U	sed Desirout	·			
Detailed Description	of Process Generating	Waste:			16Mp of 141)
· •		, –		A . 1 . 8	ton air
Physical State:	☐ Liquid	☐ Sludge	Powder	B perlet	Soing into
•	☐ Solid	Filter Cake	Combination	•	
•					machinery,
Color: Winte	Od	or: Nore		1	going into machinery (Air is Ambiect)
Color. Mor	Ou	01. <u>V 00</u>			
Specific Gravity (wat	er=1):	Density: lbs/gal			
Layers:	Single-phase	Multi-phase			
Layers.	□ Single-phase	11 vitatei-piiase			
C	[7] D		7 75	□ 041	(
Container Type:	Drum	Tote	Truck	Otner	(explain)
Container Size:	<u>55 g</u> l.				-
Frequency:	☐ Weekly	Monthly V	Quarterly	☐ Yearly	V.
	I ·		Quarterly	rearr	,
Number of Units (cor		Other:			
Texas State Waste Co	ode No:	Rourele			
Proper U.S. DOT Shi	pping Name:			Commence of the second	
Class:	UN/NA:		PG: At us		RQ: / //
N_10-			PG: _ <i>N /19</i> 2	_	NV. NIP
•					
Flash Point	pH	teactive Sulfides	Reactive Cyani	des S	olids
NIA		mg/l	mg/l		Ø %
Oil&Grease	TOC	Zinc	Copper	Nickel	
	IUC		CODDCI		

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE	Concentration	Units
The waste consists of the following materials	Ranges are acceptable	or %
Desicont		98
Wike		1
011		l
·		

Colon Mark Colon C	Concentration	Units
The waste consists of the following materials	Ranges are acceptable	or %
Desicant		98
Wer		1
01)		l
SECTION 5: Safety Related Data		
If the handling of this waste requires the use of special protective equip	•	
SECTION 6: Attached Supporting Documents		
	a new of the weste annuoval needs	
List all documents, notes, data, and/or analysis attached to this form as poly	s part of the waste approval packa	ge.
SECTION 7: Incompatibilities		
Please list all incompatibilities (if any):		
- pone		
SECTION 8: Generator's Knowledge Documentation		
Laboratory analysis of the hazardous waste characteristics, listed belogenerator knowledge:	w, WAS NOT PERFORMED base	d upon the following
TCLP Metals:		
TCLP Volatiles:		
TCLP Volatiles: TCLP Semi-Volatiles: Reactivity: Corrosivity: Ignitability:		see w
Reactivity:		e_{\pm}^{α} . ϵ
Corrosivity:		e de la companya de
SECTION 9: Generator's Certification		
The information contained herein is based on generator knowledge and attached description is complete and accurate to the best of my knowle omissions of composition properties exist and that all known or suspected tested are representative of all materials described by this document.	edge and ability to determine that n d hazards have been disclosed. I co	no deliberate or willing that the material
Authorized Signature La Cala Le helst	Date: 9.28.08 Sales coodin	
Printed Name/Title: Angala Verhelst	<u>Sales</u> coodu	10ta
CES USE ONLY (DO NOT WRITE IN THIS SPACE)		
Compliance Officer: Robbert May Addit	ional Information:	
Date: 12-15-0 (Approved) Rejected		

CES USE ONLY (DO NOT WRITE IN THI	S SPACE)	
Compliance Officer: Robber	Majua	Additional Information:
Date: 12-15-01	Approved Rejected	
Approval Number: 1963		

SE	CTION 10: Waste Receipt Classification Under 40 CFR	437		
Is t	his material a wastewater or wastewater sludge? YES	Ø NO		
If'	Yes', complete this section.	÷		
PL	EASE CHECK THE APPROPRIATE BOX. IF NO APPR	OPRIATE CATE	GORY, GO TO THE	E NEXT PAGE.
<u>Meta</u>	ls Subcategory: Subpart A			
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters		April 1 mary 1	Access to the second se
	Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from el Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equ		osphating operations	
Oils .	Subcategory: Subpart B			
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum source Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes	es		
<u>Orga</u>	nics Subcategory: Subpart C			
	Landfill leachate Contaminated groundwater clean-up from non-petroleum so Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Worthwater from adhesives and/or enovies formulation	Durces		
Ħ	Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources			

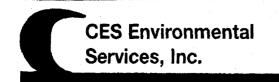
(1)	If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)	If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.
	Cadmium: 0.2 mg/L Chromium: 8.9 mg/L Copper: 4.9 mg/L Nickel: 37.5 mg/L
(3)	If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.
	Metals Subcategory
	Oils Subcategory

SECTION 11: Additional Instructions

Organics Subcategory

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

Centusy Asphalt (Resh**1964** Profile # 1964



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/15/2006

Dear

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1964

Generator: Century Asphalt Materials (Rosharon)

Address: 5730 Old Alvin Rd

Rosharon, TX 77583

Waste Information

Name of Waste: TPH contaminated soil

TCEQ Waste Code #: CESQ3011

Container Type:

yd bin

Detailed Description of Process Generating Waste:

Soil impacted with unused hydrocarbons (diesel)

Color: brown

Odor: non

pH: na

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

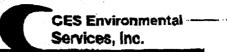
CES Environmental Services, Inc.

DEC-13-2006 08:19

CES Environmental Svcs.

7137488664

P.02



4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

		EPA ID No: TXD		11 No: 30948 SWR No: 3096	00	
SECTION 1: Generate	or information					
Company:	CENTURY	Asohal4	+ mate	riAls.	<u>-</u> .	·
Address:	5730	18 Blv		200		
City, State, Zip :	ROSMACO-	77X	7758	(3		
Contact:		aclaic.		itie :		
Phone No :		1-2621	F	ax: 25	31- 421	9662
24 / HR Phone :						-
U.S EPA I.D No :	TXCESRE				1/4	
State I.D:	C£586		\$i	IC Code	NA	
SECTION 2: Billing in	nformation		•			
Company:	CENTUR	1 Dephal	+ Wate	2/A 173		
Address:	P.O. B	タイ ラン				
City, State, Zlp:	Raytow.	~ 77	7753	<u> </u>		
Contact:	Rick S	CALT	Ti	itle :		
Phone No:	581- NSI	-2621	Fa	ax :		·
	Description of the War		t			
	TPH Conta	minated soi				
	Sil impacted	en affer	ed hydroc	wood /	diesel)	
Physical State:	Liquid	Sludge	Powd		_ /	
Maiosi यक्कः	_	Hagarit				
	Solid	Filter Cake	Camb	Ination		
Color:		<u>ا</u>	Odor :		NONE	
Specific Gravity (W	/ater=1):/	4	Density:		- 4/4	lbs / gal
Layers :	Single-Phas	☐ Multi-Phas			A A	
Container Type :] Drum [Tota [Truck 🕞 🔾	ther (explain)	4968	Bin
Container Size :	20 VAP	7	· 		•	
Number Of Units :	7-0					
Texas State Waste		sa 3011	•			
	Vaste Code No : _ \	-	Non Do	1 20gs	1 Sofals	la:zater
Class: AA		4: <u>V/r</u>	PĠ:	NA		RQ: NA
Flash Point	Hid	Read	tive Sulfides	Reactive Cy	/anides	Solids
WIX	N/	Andrew Comment	N/ W mg/	elu	mg/l	100 %
Oll and Grease			Zinc	Coppe		Nickel
NIB	mg/l V	k mg/l	NA mg/	N.I.V	. mg/l	N/A mg/l

2814219662

DEC-13-2006 08:19

CES Environmental Svcs.

7137488664

P-03

SECTION	4: Physical	and Chemical	Data

Sml

99-100%

Dies

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain.

Standard PPE

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package.

Environ Express Laboratories

certificate # 61287.01, 61287.02

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

None

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generators knowledge

TCLP Metals:

TCLP Volstilies:

TCLP Semi-Volatiles : V

Reactivity:

Corrosivity:

Ignitability:

SECTION 9: Generator's Certification

The information contained herein is based on 🔯 generator knowledge and/or 🖾 analytical data. I hereby cerity that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Authorized Stanabure:

Printed Name / Title :

CES USE ONLY (DO NOT WRITE IN THIS SPACE)

Status:

Special Pricing / Analytical Info:

Compliance Officer:

Date:

Approved

Recommended Treatment:

Approval Number: 1964

2

Rejected

	Dec	13 2006 9:19AM CENTURY ASPHALT		28142196	62	p.4
_	DEC-	13-2006 08:20 CES Environmental Sv	CS.	A	7137488664	P.04
_	SECT	ION 10: Waste Receipt Classification Under 40 CFR 437				
•	la this	material a wastewater or wastewater sludge?	MO			
٠	If YE	S', complete this section				
		•	FE CATEGORY	/ 00 TO THE NEVI	DACE	
		ISE CHECK THE APPROPRIATE BOX: IF NO APPROPRIATE	E CATEGORY	, GO TO THE NEXT	PAGE	
		s Subcategory: Subpart A				
		Spent electroplating baths and/or sludges				
		Metal finishing rinse water and sludges				•
		Chromate wastes				
		Air pollution control blow down water and sludges				
		Spent anodizing solutions	· · · · · · · · · · · · · · · · · · ·		e de la la la la la la la la la la la la la	e e e e e e e e e e e e e e e e e e e
		Incineration wastewaters			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
		Waste liquid mercury				
		Cyanide-containing wastes greater than 136 mg/l				
		Waste acids and bases with or without metals				
		Cleaning, rinsing, and surface preparation solutions from ek	edroplating or p	phospha		
		Vibratory deburring wastewater	-			
		Alkaline and acid solutions used to clean metal parts or squ	ipment			
						•
		Subcategory: Subpart B				
	10	Used ails				
		Oil-water emulsions or mixtures	•			
		Lubricante				
		Coolants	•			
		Contaminated groundwater clean-up from petroleum source	6		•	
		Used petroleum products				
		Oil spill clean-up				
	_ 🖳	Bilge water		•		
		Rinse/wash waters from petroleum sources			e e	
		Interceptor wastes				
	IJ	Off-specification fuels				
		Underground storage remediation wastes				
		Tank clean-out from petroleum or oily sources				
		Non-contact used glycols				
		Aqueous and oil mixtures from parts cleaning operations				
		Wastewater from oil bearing paint washes				
	Organ	nice Subcategory Subpart C				
		Landfill leachate				
٠		Contaminated groundwater clean-up from non-petroleum so	urces	The second secon	s. I de de	
		Solvent-bering wastes				
		Off-specification organic product				
		Still bottoms	and a state of the property of the state of	La la cargo de la casa de la casa de la casa de la casa de la casa de la casa de la casa de la casa de la casa La casa de la casa de		and the second second second second second second second second second second second second second second seco
		Byproduct waste glycol				
		Wastewater from paint washes				
		Wastewater from adhesive and/or epoxles formulation				
		Wastswater from organic chemical product operations	ense grant Wage Wildeline Son e en	the first the supplementation is a section of a second	and the second of the second o	ing and the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the seco
		Tank clean-out from organic, non-petroleum sources				

ENVIRON EXPRESS LABORATORIES, INC.

401 N. 11th. St. La Porte, TX 77571 281.471.0951 FAX:281.471.5821

CERTIFICATE NO: 61287.01 1 of 1

Customer: CES Env. Svcs. Project ID: Century Asphalt

Sample ID: #1 Contaminated

Environ ID: 61287.01

Sampled: 12-05-06 Received: 12-05-06

Project Loc: Arcola Charge/P.O.:

Matrix: Soil Type:

Reported: 12-11-06

ANALYTE/	RESU	JLT	UNITS	REG.	DET.	TEST	TEST	DATE	TIME
PARAMETER				LIMIT	LIMIT	METHOD	BY		Section 1
BTEX - TOTAL	7.	parameter.	* '*						
Benzene		5 81	mg/kg		1	EPA SW846.8021B	DMB	12-11-06	17:06
Toluene	1	81	mg/kg	-	1	EPA SW846.8021B	DMB	12-11-06	17:06
Ethylbenzene		63	mg/kg	· _	1	EPA SW846.8021B	DMB	12-11-06	17:06
Xylenes) 3	323	mg/kg] _	3	EPA SW846.8021B	DMB	12-11-06	17:06
Total BTEX	4	171	mg/kg	\ <u>-</u>		EPA SW846.8021B	DMB	12-11-06	17:06
METALS -TCLP		,				EPA SW846.1311	MN	12-05-06	
Arsenic	< (0.1	mg/l	5	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Barium		1.4	mg/l	100	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Cadmium	< (0.1	mg/l	1	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Chromium	< (0.1	mg/l	1.5/5.0	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Lead	< (0.1	mg/l	1.5/5.0	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Selenium		0.1	mg/l	1	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Silver	< (0.1	mg/l	5	0.1	EPA SW846.6010B	JK -	12-08-06	16:34
Mercury	< 0	.02	mg/l	0.2	0.02	EPA SW846.7470A	MN	12-07-06	10:00
									·

Key:

REG - Regulatory Limit (User Should Verify)

DET - Detection Limit

TCLP - Toxcisity Characteristic Leaching Procedure

GRO - Gasoline Range, DRO - Diesel Range, ORO - Oil Range

mg/I - PPM by Volume

mg/kg - PPM by Weight

SU. Standard Units

kg - kilograms

l - Liter

John Keller

John Keller, Ph.D **Laboratory Director**

1of 1



ENVIRON EXPRESS LABORATORIES, INC.

401 N. 11th. St. La Porte, TX 77571 281.471.0951 FAX:281.471,5821

CERTIFICATE NO:

61287.02

Customer: CES Env. Svcs. Project ID: Century Asphalt Sample ID: #2 Background

Environ ID: 61287.02

Sampled: 12-05-06 Received: 12-05-06

Project Loc: Arcola Charge/P.O.:

Matrix: Soil Type:

Reported: 12-11-06

ANALYTE/ PARAMETER	R	ESULT	UNITS	REG. LIMIT	DET. LIMIT	TEST METHOD	TEST BY	DATE	TIME
BTEX - TOTAL				2					
Benzene	<	0.005	mg/kg	-	0.005	EPA SW846.8021B	DMB	12-11-06	15:20
Toluene	<	0.005	mg/kg	-	0.005	EPA SW846.8021B	DMB	12-11-06	15:20
Ethylbenzene	ĺ	0.020	mg/kg	-	0.005	EPA SW846.8021B	DMB	12-11-06	15:20
Xylenes	i	0.089	mg/kg	-	0.015	EPA SW846.8021B	DMB	12-11-06	15:20
Total BTEX		0.109	mg/kg	-		EPA SW846.8021B	DMB	12-11-06	15:20
METALS -TCLP	1		. "			EPA SW846.1311	MN	12-05-06	1
Arsenic	<	0.1	mg/i	5	0.1	EPA SW846,6010B	JK	12-08-06	16:34
Barium	1	2.6	mg/i	100	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Cadmium	<	0.1	mg/i	1	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Chromium	<	0.1	mg/l	1.5/5.0	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Lead	<	0.1	mg/l	1.5/5.0	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Selenium	<	0.1	mg/l	1	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Silver	<	0.1	mg/i	5	0.1	EPA SW846.6010B	JK	12-08-06	16:34
Mercury	<	0.02	mg/i	0.2	0.02	EPA SW846.7470A	MN	12-07-06	10:00

REG - Regulatory Limit (User Should Verify)

DET - Detection Limit

TCLP - Toxcisity Characteristic Leaching Procedure

GRO - Gasoline Range, DRO - Diesel Range, ORO - Oil Renge

mg/l - PPM by Volume

mg/kg - PPM by Weight

SU - Standard Units

kg - kilograms

i - Liter

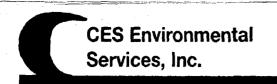
John Keller

John Keller, Ph.D **Laboratory Director**

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(281) 471-0951 / Fax: (281) 471-5	821 / After Hours: (281) 844-2308	Phone: 713 -6 Fax: 703 - 6	76-(76-	460	ا د			Phon Fax:											Coole	r Ter	np. (°C)	Prese Yes	rvalive No	Showin	
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	S:Soil W:Water WW:Waste Water S Container Typ P:Plastic G:Glass V:VOA Glass O:C	e Kev	SE:Sed	iment	L: Lea	chate	WI:	Wipe	OR:						3 F	rese	rvat	ive i	Kev		1	~	S2O3	0-1-		
Delivery of samples	P:Plastic G:Glass V:VOA Glass U:C constitutes acceptance of Environ's terms a	nd conditions in the Pr	ice Sche	dule.			<u> </u>		1:10	e(<4°	C) 2:	HCL	J:H2	504	+:HN	J3 5 ;	NaOF	1 0:1	aOH+	Zn Ad	cetate	/:Na2	5203	o:Non	e	

1967 Enter prise Accounts Roof-## 1967



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/18/2006

Dear Mike Tomerlin

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1967

Generator: Enterprise Products Operating, L.P.

Address: 316 S. Main St., Attn: Rachel Wheaton

Mont Belvieu, TX 77580

Waste Information

Name of Waste: Wastewater containing methanol

TCEO Waste Code #: 00201011

Container Type:

Detailed Description of Process Generating Waste:

Wastewater and alcohol mixtures from manufacturing process

Color: amber

Odor: hydrocarbon

pH: 5.8

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

CES Environmental Services, Inc.

4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021

76-1460 Fax: (713) 676-1676

http://www.cesenvironmental.com TCEQ Industrial Solid Waste Permit No: 30948

U.S. EPA ID No: TXD008950461

ISWR No: 30900

MB 967

SECTION 1: Gener	ator information
Company:	Enterprise Products Operating L.P.
Address :	
City, State, Zip:	MONT BETUTEN TX 77580
Contact:	Mike tomedia Title:
Phone No :	281-385-4310 Fax: 281-385-4532
24 / HR Phone:	
U.S EPA I.D No :	TX7 490013455
State I.D:	31038
SECTION 2: Billing	
Сотралу:	Enterprise Products Operating L-P.
Address :	- 2.0. Box 573
City, State, Zip:	Mont Belview TX 77580
Contact : Phone No :	MIKE TOMETIN TITLE: 291-385-4310 Fax: 281-385-4532
riione no .	
SECTION 3: Genera	al Description of the Waste Maste water watering methand
Name of Waste:	
	proun
Physical State:	V Liquid ☐ Sludge ☐ Powder
rnysical State:	
	Solid Filter Cake Combination
Color:	Amber odor: Ehrenicathyholabon
Specific Gravity (Water=1):
Layers:	☑ Single-Phas ☐ Multi-Phase
Container Type :	Drum Tote Truck Other (explain)
Container Size :	559AL
Number Of Units	
Texas State Wast	
Description of the	much the file and linkings n. o. c.
Proper U.S. State	Waste Code No Waste Flammable Liquids, n.o.s.
Class: 3,,	UNINA: UN 1993' 3 PG: TTT " RQ:
Flash Poin	
	5-8-3 N/A mg/1 N/A mg/1 N/4 %
Oil and Grea	se TOC Zinc Copper Nickel
Oil and Grea	1500 1 mg/1 NA mg/1 NA mg/1

DEC-14-2006 11:35 CES Environmental Svcs.	7137488664	P.03
SECTION 4: Physical and Chemical Data		•
Water 80-98%		
METHANO1 HF- 2006		
SECTION 5: Safety Related Data		
If the handling of this waste requires the use of special protective equipment, please explain.		
Standard PRE		
37/ DIADNATC		
the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the co	a so on a substitution with	aran gar
SECTION 6: Attached Supporting Documents	•	
List all documents, notes, data, and/or analysis attached to this form as part of the waste appro-	val package.	
COFF # 61183.02		
SECTION 7: Incompatibilities		
Please list all incompatibilities (if any):		
None		
SECTION B. Consented at the selection Beauty and the		
SECTION 8: Generator's Knowledge Documentation Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORME	D based upon the	
following generators knowledge	b basea apon me	
TCLP Metals :		
TCLP Volatilies:		
TCLP Semi-Volatiles:		
Reactivity:		
Corrasivity:		
gnitability :		
SECTION 8: Generator's Certification		
The information contained herein is based on generator knowledge and/or analytical databove and attached description is complete and accurate to the best of my knowledge and abilitiveliberate or willful omissions of composition properties exist and that all known or suspected lisclosed. I certify that the materials tested are representative of all materials described by this	y to determine tha nazards have been document.	t no
Authorized Signature: Date: 12 Printed Name / Title: MIKE Tomer in Kield Environt	-15-2006	
Printed Name / Title: MIKE Tomer In Kield Environ	ientroller	<i>HØ</i> .
CES USE ONLY (DO NOT WRITE IN THIS SPACE) Special Pricin	g / Analytical Info:	Ì
Compliance Officer: Rabbun Majoch	<u></u>	

Approval Number: 1967

Date: 12-18-06 Status:

Rejected

pproved

Recommended Treatment:

DEC-	-14-2006 11:35 CES Environmental Svcs.	7137488664 P.04
SEC	I/ON 10: Waste Receipt Classification Under 40 CFR 437	- विकास समितिक समितिक समितिक समितिक समितिक समितिक समितिक समितिक समितिक समितिक समितिक समितिक समितिक समितिक समित समितिक समितिक
is th	Is material a wastewater or wastewater sludge? VYES NO	and the state of t
If 'Y	ES', complete this section	
PLE	ASE CHECK THE APPROPRIATE BOX: IF NO APPROPRIATE CATEGOR'	Y, GO TO THE NEXT PAGE
Mat	els Subcategory: Subpart A	
	Spent electroplating baths and/or sludges	
	Metal finishing rinse water and sludges	
	Chromate wastes	
	Air pollution control blow down water and sludges	
	Spent anodizing solutions	
	Incineration wastewaters	
	Waste liquid mercury	and the second of the second o
ليا	Cyanide-containing wastes greater than 136 mg/l	
	Waste acids and bases with or without metals	
	Cleaning, rinsing, and surface preparation solutions from electroplating or p	phospha
	Vibratory deburring wastewater	
	Alkaline and acid solutions used to clean metal parts or equipment	
Olls	Subcategory: Subpart B	
	Used oils	
	Oil-water emulsions or mixtures	
11	Lubricants	
	Coolants	
	Contaminated groundwater clean-up from petroleum sources	
	Used patroleum products	
ū	Oil spill clean-up	
_ □/	△ Blige water	
. ∆ ⁄	Rinse/wash waters from petroleum sources	
	Interceptor wastes	
	Off-specification fuels	
	Underground storage remediation wastes	
Ī	Tank clean-out from petroleum or olly sources	
\Box	Non-contact used glycols	
	Aqueous and oil mixtures from parts cleaning operations	
<u>'</u> '	Wastewaler from oil bearing paint washes	·
Urga	nics Subcategory Subpart C Landfill leachate	
	Contaminated groundwater clean-up from non-petroleum sources	
	Solvent-bering wastes	
	Off-specification organic product	
[Still bottoms	
	Byproduct waste glycol	en alleger en de de de la companyación de la compan
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	Wastewater from adhesive and/or epoxies formulation	
	Wastewater from organic chemical product operations	
7	Tank clean-out from organic, non-petroleum sources	والمراجع والمستقيل والمناف المراجع والمتافي والمتافي والمتافية والمتافية والمتافية والمتافية والمتافية والمتافية
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_	-טיפע	11-2006 15:25 CES Environmental Svcs.	(13)	7488664 P.U4	
	SECT	ION 10: Waste Receipt Classification Under 40 CFR 437			
	Is this	s material a wastewater or wastewater sludge? YES NO		are the thirt highway	
	If 'YE	S', complete this section			
		SE CHECK THE APPROPRIATE BOX: IF NO APPROPRIATE CATEGORY, GO	TO THE NEXT PAGE	:	
		s Subcategory: Subpart A	TO THE HEAT TAGE		
		Spent electroplating baths and/or sludges			
	$\overline{\Box}$	Metal finishing rinse water and sludges			
	$\bar{\Box}$	Chromate wastes			
		Air pollution control blow down water and studges			
		Spent anodizing solutions			
		Incineration wastewaters			
		Waste liquid mercury	at the same of the	we in the second	artin.
		Cyanide-containing wastes greater than 136 mg/l	,		
		Waste acids and bases with or without metals			
		Cleaning, rinsing, and surface preparation solutions from electroplating or phosph	na		
		Vibratory deburring wastewater			
		Alkaline and acid solutions used to clean metal parts or equipment			
	01- 0	Notice to the second of the se			
	OIIS S	Subcategory: Subpart B Used oils			
	<u></u>	Oil-water emulsions or mixtures			
		Lubricants			
		Coolents			
		Contaminated groundwater clean-up from petroleum sources			
		Used petroleum products			
		Oil spill clean-up			
		Bilge water			
		Rinse/wash waters from petroleum sources			
		Interceptor wastes			
		Off-specification fuels			
		Underground storage remediation wastes			
	U	Tank clean-out from petroleum or oily sources			
		Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations			
		Wastewater from oil bearing paint washes			
	<u></u> '	Avastewater from the bearing paint wasties			
	Organ	nics Subcategory Subpart C			
٠		Landfill leachate			
		Contaminated groundwater clean-up from non-petroleum sources			
		Solvent-bering wastes			
		Off-specification organic product		•	
		Still bottoms			
		Byproduct waste glycol		and the second s	
		Wastewater from paint washes			
		Wastewater from adhesive and/or epoxies formulation			
		Wastewater from organic chemical product operations Tank clean-out from organic conspectateum sources			
	1 1	CHOIL CHANGED OF TEATH CONTROL CONTROL CONTROL CONTROL	and the second of the second of the con-	and the second of the contract	



ENVIRON EXPRESS LABORATORIES, INC.

401 N. 11th. St. La Porte, TX 77571 281.471.0951 FAX:281.471.5821

CERTIFICATE OF ANALYSIS NO:

61183.02

1of 1

Customer: CES Env. Svcs.

Sample ID: Water & Methanol

Environ ID: 61183.02

Project ID: Enterprise Products

Sampled: 11-08-06

Project Loc: Mt. Belvieu, TX

Received: 11-08-06

Charge/P.O.:

Matrix: Liquid Type: Composite

Reported: 11-17-06

RECEIVED BASIS

ANALYTE/ PARAMETER	RESULT	UNITS	REG. LIMIT	MQL	TEST METHOD	ANALYST	DATE	TIME
RCI								
Corrosivity (Ph)	5.83	su	=>2; =<12.5		SW846.9045C	JA	11-08-06	15:30
Ignitability	75	°F .	> 140	-	SW846.1010	LC	11-09-06	15:25

REG - Regulatory Limit (User Should Confirmsu - Standard Units

MQL - Method Quanitation Limit

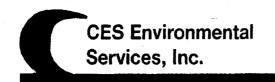
PPM - Parts Per Million

mg/l - PPM by Volume, mg/kg - PPM by Weight

John Keller, Ph.D Laboratory Director

Kinder Morgan Prof # 1968

EPAHO105002014



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/18/2006

Dear Jonny Salinas

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1968

Generator: Kinder Morgan **Address:** 906 Clinton Dr

Galena Park, TX 77547

Waste Information

Name of Waste: Empty drums TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

Empty drums

Color: na

Odor: na

pH: na

Physical State:

Incompatibilities: none known

Safety Related Data/Special Handling:

standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

1968

4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948

U.S. EPA ID No: TXD008950461

ISWR No: 30900

SECTION 1: General	or Information		~			•
Company:	Kinder	- MOTGA	AD NA	ルテング	PATE)	n - year or agent of the control of
Address :	906	Clinton	DC:06			
City, State, Zip:	10 Ale	NA PAT	· C	TX	77547	
Contact :	LANCE	wiley		Title):	
Phone No :	713-8	32-783h	8	Fax	:	
24 / HR Phone :		·				
U.S EPA I.D No :	NA				1.	
State I.D :	N/A			SIC	Code NA	
SECTION 2: Billing Ir	formation					
Company :	Kinde	~ more	NON			
Address :	906	clinton	- Drive	·	·	
City, State, Zip:	JA1 E	VV BV	rk.	77	77547	
Contact:				Title		
Phone No:	•			Fax	:	
SECTION 3: General I	Description of t	na Wasta 🚡	note drum	s İ		
Name of Waste:	Sescription of the	ie vvaste I	rysy orium	,主·		•
Name of Waste.	swb.	d olar	<u>^ ></u>			
Physical State:	Liquid	SI	udge [Powder		
	Solid	☐ Fi	Iter Cake	☐ Combina	ation	
•		vil.			_	
Color:		NIF	Odor	:	None	
Specific Gravity (Wa	ater=1) :	NA	Dens	ity:	NIT	lbs / gal
Layers :	Single-P	has 📳 Mi	ulti-Phase			
Container Type : [>		Tote	Truck	. Othe	er (explain)	
-			(<u></u>		
Container Size :	55	7/-				
Number Of Units:	25		DECYCLE			
Texas State Waste (Code No :	N/A-1	RECYCLE		A	_1
Proper U.S. State W	aste Code No	: Non	-RCRA, NO	11-DU	T Regulated	Note of
Class : NA	(JN/NA:	a s	PG :	na	RQ: Na
Slack Onint		- -	Positive Cult	dee T	Pagativa Cuaridas	Colido
Flash Point		DH V	Reactive Sulfi	des mg/l	Reactive Cyanides mg/l	Solids
Oil and Grease	***********	тос	Zinc		Copper	Nickel
l l	mg/l	mg/l	NA	mg/l	May mg/l	MA mg/l
14/		4				Total Control

N/A metal 0-100	0/3	
Plastice Poly 0-100	%0	
	entario per menero amperar i en activir en matrio menero accesso problemes, enemento activir en el control de m	
	nease explain.	
SECTION 5: Safety Related Data If the handling of this waste requires the use of special protective equipment, please explain. SECTION 6: Attached Supporting Documents List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. SECTION 7: Incompatibilities Please list all incompatibilities (if any): NONE KNOWN SECTION 8: Generator's Knowledge Documentation Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generators knowledge TCLP Metals: TCLP Semi-Volatilies: TCLP Semi-Volatilies: Corrosivity: Lignitability: SECTION 9: Generator's Certification The information contained herein is based on generator knowledge and/or analytical data. I hereby cerity that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful missions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document. Authorized Signature: 10		
SECTION 6: Attached Supporting Documents		
	the waste approval package	
MA.	allo waste approval paskage.	
SECTION 7: Incompatibilities		
Please list all incompatibilities (if any):		
NONE Known		
SECTION 8: Generator's Knowledge Documentation		
	NOT PERFORMED based upon the	
TCLP Metals:		
TCLP Volatilies :		
TCLP Semi-Volatiles :		
Reactivity:		
Corrosivity:		
Ignitability:		
SECTION 9: Generator's Certification		
above and attached description is complete and accurate to the best of my known deliberate or willful omissions of composition properties exist and that all known	wledge and ability to determine that no on or suspected hazards have been	
Authorized Signature: not required	Date: 12-18-06	
Printed Name / Title :	# Afreide 1	
CES USE ONLY (DO NOT WRITE IN THIS SPACE)	Special Pricing / Analytical Info:	
SECTION 5: Safety Related Data If the handling of this waste requires the use of special protective equipment, please explain. SecTION 6: Attached Supporting Documents List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. SECTION 7: Incompatibilities Please list all incompatibilities (if any): NOME KNOWN SECTION 8: Generator's Knowledge Documentation Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generators knowledge TCLP Metals: TCLP Volatilies: Reactivity: Corrosivity: Ignitability: SECTION 9: Generator's Certification The information contained herein is based on generator knowledge and/or analytical data. I hereby cerity that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document. Authorized Signature: Not required Date: 12-18-06 Printed Name / Title: CES USE ONLY (DO NOT WRITE IN THIS SPACE) Special Pricing / Analytical Info:		
Date: 12-18-06 Status: Approved Rejected	Recommended Treatment:	
Approval Number: 1968		

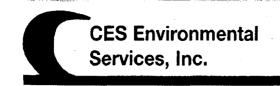
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ANT TEN

is ti	his material a wastewater or wastewater sludge?	YES	X NO						
lf 'Y	ES', complete this section								
PLE	EASE CHECK THE APPROPRIATE BOX: IF NO APP	ROPRIAT	E CATE	GORY, GO	TO THE	NEXT PA	GE		
Mat	tals Subcategory: Subpart A	ga ga san dan Pagan da Tanah da san ya	· page of the first space of	e o company and a mangang of a state of the constraints	e annoque i stransi i ca ci	eurospii s. s. i liver i ruelentitee .	garage and extra	and the second second second	anggaga congat goga samo oronika tina ng 1,5 milyan hiyadio Af
	Spent electroplating baths and/or sludges								
	Metal finishing rinse water and sludges								
	Chromate wastes								
	Air pollution control blow down water and sludges	April Address of the State of	i ga, signa da momenta da	and the second second second second second	granting of all territory or an territoria.	, and any the state of the stat	and the second second second		electric second in monthly in second control of the first
	Spent anodizing solutions			•					
	Incineration wastewaters								
	Waste liquid mercury								
	Cyanide-containing wastes greater than 136 mg/l				1 4	75 k 3 k k	·		All the second
	Waste acids and bases with or without metals								
	Cleaning, rinsing, and surface preparation solutions	from elec	ctroplatir	ng or phosp	ha				
	Vibratory deburring wastewater								
	Alkaline and acid solutions used to clean metal part	s or equip	ment						
Dils	Subcategory: Subpart B								
	Used oils								
	Oil-water emulsions or mixtures								
	Lubricants								
	Coolants								
	Contaminated groundwater clean-up from petroleun	sources							
	Used petroleum products								
\Box	Oil spill clean-up								
	Bilge water								
	Rinse/wash waters from petroleum sources						•		
	Interceptor wastes								
	Off-specification fuels								,
	Underground storage remediation wastes								
_	Tank clean-out from petroleum or oily sources				***				
	Non-contact used glycols								
	Aqueous and oil mixtures from parts cleaning opera	tione							
	Wastewater from oil bearing paint washes	10113							
	wastewater from on bearing paint wasnes								
	mica Subantagam, Subanet C								
rga	nics Subcategory Subpart C Landfill leachate								
	Contaminated groundwater clean-up from non-petro	leum sou	rces	ولاستون المسار	rg mili				er i
_		icam soul	1003						
_	Solvent-bering wastes								
	Off-specification organic product					•		s	
	Still bottoms						-		
	Byproduct waste glycol						_		
	Wastewater from paint washes				•				
_	Wastewater from adhesive and/or epoxies formulation								
٦	Wastewater from organic chemical product operation								
	Tank clean-out from organic, non-petroleum sources	;							
				1964 1964 1964					
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Kinder Morgan 1969 Pag # 1969



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/18/2006

Dear Jonny Salinas

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1969

Generator: Kinder Morgan **Address:** 906 Clinton Dr

Galena Park, TX 77547

Waste Information

Name of Waste: Antifreeze
TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

Drained from equipment

Color: green

Odor: glycol like

pH: neutral

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

1969

Sale Const

4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

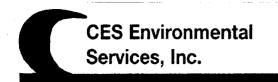
TCEQ Industrial Solid Waste Permit No: 30948

U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: General	or Information	(
Company:	Kinder morge	AN (BALENA	PATK)	
Address :	900 clinton	o Drive	<u> </u>	
City, State, Zip:	GALENA PAS	XT 27	77547	
Contact:	LANCE Wiley	T	itle :	<u> </u>
Phone No:	713-832-783	8 F	ax:	<u>-</u>
24 / HR Phone:				
U.S EPA I.D No :	NIA		LA	
State I.D :	M/A	S	IC Code N/T	
		the growth of the second		
SECTION 2: Billing I				
Company:	Kinder Mor	のあく		
Address:	906 Clinto	~ Drive		
City, State, Zip : _	ag anglad		77547	
Contact:			itle:	
Phone No :		F	ax:	
SECTION 3: General	Description of the Waste	`		
Name of Waste :	AntifeEEZE	drained too	in calcipinat	-
_		ovanvea pro	m coverys: 1	· · · · · · · · · · · · · · · · · · ·
Physical State :	Liquid = S	Sludge Powd	er	
•	Solid F	Filter Cake 🔯 Comb	ination	
Color:	breen	Odor:	None	olyco like
	_		- \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	the / mal
Specific Gravity (W	/ater=1) :	Density:		, O lbs / gal
Layers :	Single-Phas	Multi-Phase		
Container Type : §	Year of the second of the seco	Truck	ther (explain)	
Container Size :	55 9A1	· .		
Number Of Units:	25	•		
Texas State Waste	Code No : NA	Recycle		
Proper U.S. State V			n DOT REG	Instant batelin
Class:	UN/NA:	A PG:	N/4	RQ: NA
Flash Point	рН	Reactive Sulfides	Reactive Cyanides	Solids
> 200	NETINA	mg/l	mg/l	2 %
Oil and Grease	TQC	Zinc	Copper	Nickel
> 1500	. \		○ mg/l	→ mg/l

W. 4. 1. 1865 TG			190	10	
. .				5/	
H20		Cテ	50		
				. •	
SECTION 5: Safety Related Data					
If the handling of this waste requires the use of specia	al protective e	equipmen	nt, please exp	lain.	
Standard PRE					
	_				
					enegation to an order
SECTION 6: Attached Supporting Documents					in parti
List all documents, notes, data, and/or analysis attach	ied to this for	m as parl	t of the waste	approval pack	(age.
None					
SECTION 7: Incompatibilities			• .		
Please list all incompatibilities (if any):					
Done Known Oxidiza					
Samuel Samon Samuel Sam					
SECTION 9. O					
SECTION 8: Generator's Knowledge Documentation	المحفدة حافدة	- mlass 18/	AC NOT DED	ODMED been	d .man tha
Laboratory analysis of the hazardous waste characterifollowing generators knowledge	istics, listed t	below, w	AS NUI PERF	ORIVIED Dasei	a upon the
TCLP Metals:					
TCLP Volatilies :				•	
TCLP Semi-Volatiles :√					
Reactivity: J	•				
Corrosivity: J					
Ignitability:					
SECTION 9: Generator's Certification					
The information contained herein is based on en general graph above and attached description is complete and accur deliberate or willful omissions of composition properticular disclosed. I certify that the materials tested are representations.	rate to the bes ies exist and t sentative of al	st of my k that all ki	mowledge an	d ability to det ected hazards	ermine that no have been
Authorized Signature: NOT TEquire	2		Date:	51-51	2-06
Printed Name / Title :					· · · · · · · · · · · · · · · · · · ·
CES USE ONLY (DO NOT WRITE IN THIS SPACE)			Special	Pricing / Anal	ytical Info:
Compliance Officer: Rollan Blage	<u>\$</u>	<u> </u>	k to de to sprage ou to the to the end		y
Date: 19-18-06 Status: Approved	Rejecte	ed	Reco	ommended Tre	eatment:
Approval Number: 1969	and the second s	and the great state of the sign of	e de des quante per el le mars (C.)	and the second second second	angan menerala ang ang ang ang ang ang ang ang ang an

SECT	CTION 10: Waste Receipt Classification Under 40 CFR 437	en e e e e e e e e e e e e e e e e e e	্ত্ৰ কৰিছে বিশ্ব	८ - अपनामा स्थाप के विकास है। इ.स.च्या १८०० विकास है।
Is this	his material a wastewater or wastewater sludge? YES XNO			
If 'YE	/ES', complete this section		रा राज्य समित्र ग्रीहरू जन्म	
PLEA	EASE CHECK THE APPROPRIATE BOX: IF NO APPROPRIATE CATEGOR	Y, GO TO THE	NEXT PAGE	
Mata	tals Subcategory: Subpart A			
	Spent electroplating baths and/or sludges	•		
	Metal finishing rinse water and sludges			
	Chromate wastes			
	Air pollution control blow down water and sludges			
	Spent anodizing solutions			
	Incineration wastewaters			
	Waste liquid mercury			•
	Cyanide-containing wastes greater than 136 mg/l	$(x+1)_{n} + \beta + \delta x_n + \frac{1}{n} x_n$		A Committee of the Comm
	Waste acids and bases with or without metals			
	Cleaning, rinsing, and surface preparation solutions from electroplating or	phospha		
	Vibratory deburring wastewater			•
	Alkaline and acid solutions used to clean metal parts or equipment			
Oils S	s Subcategory: Subpart B			
	Used oils			
	Oil-water emulsions or mixtures			
	Lubricants			
	Coolants			
	Contaminated groundwater clean-up from petroleum sources			
\sqcup	Used petroleum products			
	Oil spill clean-up	÷		
	Bilge water			
	Rinse/wash waters from petroleum sources			
	Interceptor wastes			
	Off-specification fuels		÷ ,	
	Underground storage remediation wastes			
	Tank clean-out from petroleum or oily sources			
<u>.</u>	Non-contact used glycols		•	
	Aqueous and oil mixtures from parts cleaning operations	•		
	Wastewater from oil bearing paint washes			
Organ	anics Subcategory Subpart C			
	Landfill leachate			
	Contaminated groundwater clean-up from non-petroleum sources			
	Solvent-bering wastes			
	Off-specification organic product			
	Still bottoms			
	Byproduct waste glycol	normalis un melinistra com	and the second second second second second	And the second second second second second
	Wastewater from paint washes	-		
	Wastewater from adhesive and/or epoxies formulation			
	Wastewater from organic chemical product operations		المراجع والمعارض المراجع والمعارض المراجع والمعارض المعارض المعارض المعارض المراجع والمعارض المعارض ال	and the second s
	Tank clean-out from organic, non-petroleum sources			



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/19/2006

Dear Zac or Dave

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1970

Generator: Gulf Coast Charter
Address: 8410 Larson St

Houston, TX 77061

Waste Information

Name of Waste: Sample well water TCEQ Waste Code #: CESQ1191

Container Type:

Detailed Description of Process Generating Waste:

Water flushfrom sample well

Color: dark

Odor: none

pH: 4-8

Physical State:

Incompatibilities: na

Safety Related Data/Special Handling:

na

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

CES Environmental Services, Inc.

DB



4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 39048 U.S. EPA ID No: TXD008950461 ISWR No: 30900

	ator Information	\sim 1		
Company:	Gulf Cou	st Charter		
Address:	8410 La	rson St		
City, State, Zip:	Hourton	TX 77061	***	
Contact:	7 cm 100	Kansh	Title:	HSE
Phone No:	201-541	4829	Fax No:	986-483-7674
24/hr Phone:	281-541-	4829		
U.S. EPA I.D. No:	WA		-	
State I.D.	WIN		SIC Code:	
State Ap.				
SECTION 2. Billing	Information – Sa	me as Ahove		
Company:	OVEC	A A		
Address:	CAR SCYCE	a lat		
	Maria Fent	The state of		
City, State, Zip:	THU FE WAS IT	Ari Am Title:	- O- 1	В
Contact:	Car III		- Proud	37.2157
Phone No:	281-341-40	29 Fax No:	476-4	37-5674
SECTION 3: Gener	al Description of the	<u>Waste</u>		
٠	20 1. 1.61	te bre		
Name of Waste:	pmpk well L		1 -	Carl Lall
Detailed Description	of Process Generatin	ig Waste: <u>Lka</u> ter Flo	wh Frem	3 page con
	· •			
Physical State:	Liquid Liquid		Powder	
	☐ Solid	☐ Filter Cake ☐	Combination	
Color: Dak	Od	lor: None		
Specific Comity (may				
Specific Gravity (was		Density: 8.74 lbs/gal		
	ter=1): <u>.95-U</u>	Density: 8.74 lbs/gal	•	
Specific Gravity (was			•	
	ter=1): <u>.95-U</u> Single-phase	Density: 8.74 lbs/gal	•	
	ter=1): <u>.95-U</u>	Density: 8.74 lbs/gal	Truck	☐ Other (explain)
Layers: Container Type:	ter=1): <u>.95-[</u> Single-phase Drum	Density: 874 lbs/gal Multi-phase	Truck	☐ Other (explain)
Layers:	er=1): <u>.95-U</u> Single-phase	Density: 874 lbs/gal Multi-phase	Truck	Other (explain)
Layers: Container Type:	Single-phase Drum Sig 4	Density: 8.74 lbs/gal Multi-phase Tote	Truck	
Layers: Container Type:	ter=1): <u>.95-[</u> Single-phase Drum	Density: 874 lbs/gal Multi-phase	Truck	Other (explain) Yearly
Layers: Container Type: Container Size: Frequency:	Single-phase Drum Sig 4 Weekly	Density: 874 lbs/gal Multi-phase Tote Monthly		
Layers: Container Type: Container Size: Frequency: Number of Units (con	Single-phase Drum Single-phase Weekly mainers): 2.	Density: 8.74 lbs/gal Multi-phase Tote Monthly Other:		
Layers: Container Type: Container Size: Frequency: Number of Units (contexts State Waste Contexts)	Single-phase Drum Single-phase Weekly intainers): 2 ode No:	Density: 874 lbs/gal Multi-phase Tote Monthly		
Layers: Container Type: Container Size: Frequency: Number of Units (con	Single-phase Drum Single-phase Weekly intainers): 2 ode No:	Density: 8.74 lbs/gal Multi-phase Tote Monthly Other:	Quarterly	Yearly
Layers: Container Type: Container Size: Frequency: Number of Units (contexts State Waste Contexts State St	Single-phase Drum Single-phase Weekly Intainers): 2 Integral of the Notion of the	Density: 8.74 lbs/gal Multi-phase Tote Monthly Other: CESQ 119 1	Quarterly CRA Non	Vearly DOT Regulated Waster Waster
Layers: Container Type: Container Size: Frequency: Number of Units (contexts State Waste Contexts)	Single-phase Drum Single-phase Weekly intainers): 2 ode No:	Density: 8.74 lbs/gal Multi-phase Tote Monthly Other: CESQ 119 1	Quarterly	Vearly DOT Regulated Waster Waster
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Layers: Container Type: Container Size: Frequency: Number of Units (contexts State Waste Contexts State St	Single-phase Drum SC94 Weekly ntainers): 2 ode No: ipping Name: UN/NA:	Density: 8.74 lbs/gal Multi-phase Tote Monthly Other: Non Reactive Sulfides	Quarterly CRA Non PG: NA Reactive Cya	Yearly NOT Regulated Waste Waster RQ: NA nides, Solids
Layers: Container Type: Container Size: Frequency: Number of Units (context) Texas State Waste Context Proper U.S. DOT Shing Class:	Single-phase Drum Single-phase Drum Single-phase Drum Single-phase UN/NA:	Density: 8.74 lbs/gal Multi-phase Tote Monthly Other: Non R	Quarterly CRA Non PG: NA Reactive Cya mg/l	Yearly DOT Regulated Waste Water RQ: NA nides Solids NA
Layers: Container Type: Container Size: Frequency: Number of Units (context) Texas State Waste Context Proper U.S. DOT Shi	Single-phase Drum Single-phase Weekly Intainers): 2 Integral with the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second seco	Density: 8.74 lbs/gal Multi-phase Tote Monthly Other: Non Reactive Sulfides	Quarterly CRA Non PG: NA Reactive Cya	Yearly NOT Regulated Waste Waster RQ: NA nides, Solids

SECTION 4: Physical and Chemical Data

	<u> COMPONENTS TABLE</u>	Concentration	Units
	The waste consists of the following materials	Ranges are acceptable	or %
Later		90 - 97	
Selile		0-5	
Purh			

ach	90 - 97	·
Selile	e-5	
Perch		
	-	
SECTION 5: Safety Related Data		
If the handling of this waste requires the use of special protective equip	ment, please explain.	
SECTION 6: Attached Supporting Documents		
List all documents, notes, data, and/or analysis attached to this form as Eleh Look From Scyclen Trent	part of the waste approval p	ackage
SECTION 7: Incompatibilities		
Please list all incompatibilities (if any):		
SECTION 8: Generator's Knowledge Documentation		
Laboratory analysis of the hazardous waste characteristics, listed below generator knowledge:	, was not performed	based upon the following
TCLP Metals: TCLP Volatiles: TCLP Semi-Volatiles: Reactivity: Corrosivity: Ignitability:		
SECTION 9: Generator's Certification		
The information contained herein is based on generator knowledge and attached description is complete and accurate to the best of my knowled omissions of composition properties exist and that all known or suspected tested are representative of all materials described by this document.	lge and ability to determine t	that no deliberate or willf
Authorized Signature:	Date: _///4	106
Printed Name/Title Zac Mckarshe		
CES USE ONLY (DO NOT WRITE IN THIS SPACE)		· · · · · · · · · · · · · · · · · · ·
\mathcal{D} \mathcal{A}	onal Information:	
Date: 12-18-06 Approved Rejected	11	·
Approval Number: 1970		Star O Section (1997)
· · · · · · · · · · · · · · · · · · ·		

EPAHO105002027

SECTION 10: Waste Receipt Classification Under 40 CFR 437

Is this material a wastewater or wastewater sludge? X YES



If 'Yes', complete this section.

PI	LEASE CHECK THE APPROPRIATE BOX. IF NO	APPROPRIA	TE CATE	GORY, GO TO	THE NEX	T PAGE.	
Meta	als Subcategory: Subpart A						
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions f Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts		ating or ph	osphating oper	ations		2. The state of th
<u>Oils</u>	Subcategory: Subpart B			•			
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operati Wastewater from oil bearing paint washes						
Orga	anics Subcategory: Subpart C			•			
	Landfill leachate Contaminated groundwater clean-up from non-petrole Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulated Wastewater from organic chemical product operation Tank clean-out from organic, non-petroleum sources	on on the second					
	en en en en en en en en en en en en en e	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second 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second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second

(1)	If the	waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess values listed below, the waste should be classified in the metals subcategory.
	Chron Coppe	dum: 0,2 mg/L nium: 8.9 mg/L er: 4.9 mg/L 1: 37.5 mg/L
(3)		waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or above any of the values listed above, the waste should be classified in the organics subcategory.
7.5		Metals Subcategory
		Oils Subcategory
	Ø	Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



Post-it® Fax Note 7671	Dale 7/20/01 pages 25
TO TRACY	From DAVID
Co./Dept. C/C	Co. Buch ANAN ENE
Phone #	Phone #
Fax#	Fax II

ANALYTICAL REPORT

JOB NUMBER: 317105 Project ID: GROUNDWATER

Prepared For:

Buchanan Environmental Associates P.O. BOX 14634 Humble, TX 77347-4634

Attention: David Buchanan

Date: 06/07/2006

Signatuk

Jodi L. Allen

Title: Project Manager'II

E-Mail: jallen@stl-inc.com

Severn Trent Laboratories

6310 Rothway Drive Houston, TX 77040

PHONE: 713-690-4444

TOTAL NO. OF PAGES 25



06/07/2006

David Buchanan Buchanan Environmental Associates 20406 Perryoak Dr. Humble, TX 77346

Reference:

Project : GROUNDWATER

Project No. : 317105
Date Received : 06/02/2006

STL Job : 317105

Dear David Buchanan:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

- 1. MW1-N.WELL
- 2. MW2-S.WELL

All holding times were met for the tests performed on these samples.

Enclosed, please find the Quality Control Summary. All quality control results for the QC batch that are applicable to the sample(s) are acceptable except as noted in the QC batch reports.

The test results in this report meet all NELAP requirements for STL Houston's NELAP accredited parameters. Any exceptions to NELAP requirements will be noted and included in a case narrative as a part of this report.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Severn-Trent Laboratories to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

Sincerely,

Jodi L. Allen Project Manager



S A M.P.L.E. 1. N.T.O.R.M.A.T.L.O.N.
Date: 06/07/2006

Job Number .: 317105

Customer...: Buchanan Environmental Associates

Attn....: David Buchanan

Project Number..... 99001165 Customer Project ID....: GROUNDWATER

Project Description Routine Analysis

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Yime Received
317105-1	MW1-N.WELL	Water	06/02/2006	12:00	06/02/2006	14:05
317105-2	MW2-S.WELL	Water	06/02/2006	12:15	06/02/2006	14:05
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Page 1

6310 Rothway Drive . Houston, TX 77040 - Tel: 713 690 4

TACHBURUSANT

Bet IN US INC



LABORATORY

TEST RESULTS

Date:06/07/2006

Job Number: 317105

dustomen: Buchanan Environmental Associates

PROJECT: GROUNDWATER

ATTN: David Buchanan

Customer Sample 10: MW1-N.WELL Date Sampled....: D6/02/2006 Time Sampled....: 12:00

Sample Matrix....: Water

Laboratory Sample ID: 317105-1
Date Received.....: 06/02/2006
Time Received.....: 14:05

SAMPLE RESULT Q FLAGS TEST METHOD PARAMETER/TEST DESCRIPTION NDF RL DILUTION UNITS BAYCH DT DATE/TIME THECC TX-1005 TNRCC 1005 Extraction, Water Complete 156204 06/06/06 1030 LVD THRCC 1005 Direct Analytical TPH Method TX 1005 0.48 Petroleum Hydrocarbons C6 - C12, Water 0.48 4.80 1.0000 mg/L 156333 06/06/06 2135 mep Petroleum Hydrocarbons C12 - C28, Water 4.80 156335 0.84 0.84 1.0000 лg/L 06/06/06 2135 med 0.84 4.80 1.0000 Petroleum Hydrocarbons C28 - C35, Water 0.84 mg/L 156335 06/06/06 2135 nep 0.84 0.84 4.80 1.0000 mä/L 156335 Petroleum Hydrocarbons Có - C35, Water 06/06/06 2135 mes Volatile Organics (25mL purge) SN-846 B260B 0.38 0.38 1.0 1.00000 156207 06/03/06 1820 ydy ug/L Benzene. Water 0.42 1.00000 156207 06/03/06 1820 ydy 0.42 1.0 ug/L Bromodichloromethane, Water 0.65 1.00000 156207 06/03/06 1820 ydy Bromoform, Water 0.65 1.0 ug/L 0.21 0.21 2.0 1.00000 ug/L 156207 06/03/06 (82D ydy Bromomethane, Water 0.27 1.00000 υg/L 156207 06/03/06 1820 ydy Carbon Tetrachloride, Water 0.27 1.0 1.00000 156207 06/03/06 1820 ydy 0.30 0.30 1_0 ug/L Chlorobenzene, Water 1.000000 156207 06/03/06 1820 ydy 0.59 0.59 2.0 ug/L Chloroethane, Water 1.00000 156207 06/03/06 1820 ydy 0.28 0.28 1.0 ug/L Chloroform, Water D.47 0.47 2.0 1.00000 ug/L 156207 06/03/06 1820 ydy Chioremethane, Water 0.32 0.32 1.00000 156207 06/03/06 1820 ydy 1.0 ug/L Dibromochloromethane, Water 1,00000 156207 06/03/06 1820 yely 0.44 0.44 1.0 ug/L 1,1-Dichloroethame, Water 156207 06/03/06 1820 ydy 0.47 0.47 1.0 1.00000 ug/l 1.2-Dichloroethame, Water 156207 06/03/06 1820 ydy 0.33 0.33 1.0 1.00000 ug/L 1,1-Dichloroethene, Water 06/03/06 1820 ydy 156207 cis-1,2-Dichloroethene, Water 0.38 0.38 1.0 1.00000 ug/L 156207 06/03/06 1820 Vdy 0.31 0.31 1.0 1.00000 ug/L trans-1,2-Dichloroethene, Water 156207 06/03/06 1820 ydy 0.39 0.39 1.0 1.00000 ug/L 1,2-Dichloropropane, Water 0.37 1.0 1.00008 Wg/L 156207 06/03/06 1820 ydy 0.37 Ethylbenzene, Water 1.00000 156207 06/03/06 1820 ydy 1.0 ug/L Methylene Chloride, Water 0.56 0.56 1.0 1.00000 ug/l 156207 06/03/06 1820 ydy 0.34 0.34 Styrene, Water



LABORATORY TEST RESULIS

Job Number: 317105

Date:06/07/2006

CUSTOHER: Buchanan Environmental Associates

PROJECT: GROUNDWATER

ATTN: David Buchanan

Customer Sample 10: MW1-N.WELL Date Sampled....: 06/02/2006 Time Sampled....: 12:00 Sample Matrix...: Water

Laboratory Sample ID: 317105-1 Date Received....: 06/02/2006

Time Received.....: 14:05

TEST HETHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RĻ	DI LIUTION	UNITS	ВАТСН	DΤ	DATE/TIME	TECH
	1,1,2,2-Tetrachloroethane, Water Tetrachloroethene, Water Toluene, Water 1,1,1-Trichloroethane, Water 1,1,2-Trichloroethane, Water Trichloroethene, Water Vinyl Chloride, Water Vinyl Chloride, Water Xylenes (total), Water Acetone, Water Carbon Disulfide, Water cis-1,3-Dichloropropene, Water trans-1,3-Dichloropropene, Water Methyl Ethyl Ketone (2-Buterone), Water 2-Hexanone, Water 4-Methyl-2-pentamone (MIBK), Water 1,2-Dichloroethene (total), Water	0.42 0.42 0.40 0.28 0.62 0.38 0.34 0.95 18.5 0.47 0.42 0.40 1.08 0.75 0.67		0.42 0.42 0.40 0.28 0.62 0.38 0.34 0.95 0.87 0.47 0.42 0.40 1.08 0.75 0.60	1.0 1.0 1.0 1.0 1.0 2.0 3.0 2.0 1.0 1.0 1.0 2.0 2.0	1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000	19/1 19/1 19/1 19/1 19/1 19/1 19/1 19/1	156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207	The state of the s	06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820 06/03/06 1820	ydy ydy ydy ydy ydy ydy ydy ydy ydy ydy
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LABORATORY TEST RESULTS

Job Number: 317105

Date: 06/07/2006

CUSTOMER: Buchanan Environmental Associates

PROJECT: GROUNDWATER

ATTN: David Buchanan

Customer Sample ID: MWZ-S.WELL Date Sampled....: 06/02/2006 Time Sampled....: 12:15 Sample Matrix....: Water

Laboratory Sample ID: 317105-2
Date Received.....: 06/02/2006
Time Received.....: 14:05

EST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE	result	Q FLAGS	NDL {	RL	DIFALION	UNITS	BATCH	DT	DATE/TU	ME	7 E
RCC FX-1005	TURCC 1005 Extraction, Water	Complete					1	·	156204		06/06/06	1030	lγ
TNRCC 1605	Direct Analytical TPH Method IX 1005	<u> </u>									ľ	1	
i i	Petroleum Kydrocarbons C6 - C12, Water		0.48	u	0.48	4.77	1.0000	mg/L	156335		06/D6/06	2210	me
	Petroleum Rydrocarbons C12 - C28, Water		0.83	U	0.83	4.77	1.0000	mg/L	156335		05/06/06		
	Petroleum Hydrocarbons C28 - C35, Water		0.83	u	0.83	4.77	1.0000	π <u>b</u> /L	156335		06/06/06		
	Petroleum Hydrocarbons C5 - C35, Water		0.83	바	0.83	4.77	1,0000	mģ/L	156335		06/06/06	2210	me
4-846 8260B	Votatile Organics (25mL purge)												
	Benzene, Water		0.38	U	0.38	1.0	1.00000	ug/L	156207		06/03/06		
建 有14.5	Bromodichloromethane, Water		0.42	u	0.42	1.0	1.00000	ug/L	156207		06/03/06		
	Brompform, Water		0.65	101	0.65	1.0	1.00000	ug/L	156207		06/03/06		
YKT .	Bromomethane, Water		0.21	U	0.21	2.0	1.00000	ug/L	156207		06/03/06		
	Carbon Tetrachloride, Water		0.27		0.27	1.0 1.0	1.00000	ug/L	156207 156207		06/03/06		
	Chlorobenzene, Water		0.30 0.59		0.59	2.0	1.00000	ug/L	156207		06/03/06 06/03/06		
	Chloroethane, Water		0.28	151	0.39	1.0	1.86080	ug/L ug/L	156207		06/03/06		
alako:	Chloroform, Water		0.47	151	0.47	2.0	1.00000	ug/t ug/t	156207		06/03/06		
104 104 104 104 104 104 104 104 104 104	Chioromethane, Water		0.32	L L	0.32	1.0	1.00000	ug/L	156207		06/03/06		
160	Dibromochloromethane, Water	29		14	8.8	20	20.00000	ug/l	156207		06/05/06		
	1.1-Dichloroethane, Water		0.47	lul	0.47	1.0	1.00000	ug/L	156207	1 1	06/03/06	1850	1
	1,2-Dichloroethane, Water	- 14		اما	6.6	20	20.00000	ug/L	156207	1	06/05/06	1635	ı
Ni	1,1-Dichloroethene, Water		0.38	hal	0.38	1.0	1.00000	ug/L	156207		06/03/06		
	cis-1,2-Dichloroethene, Water		0.31	U	0.31	1.0	1,00000	ug/L	156207		06/03/06		
	trans-1,2-Dichloroethene, Water		0.39		0.39	1.0	1,00000	ug/L	156207		06/03/06		
	1,2-Dichloropropane, Water		0.37	U	0.37	1.0	1,00000	ug/L ug/L	156207		06/03/06		
	Ethylbenzene, Water			101	0.56	3.0	1.00000	ug/L ug/L	156207		06/03/06		
NEW TOTAL	Methylene Chloride, Water		0.56 0.34	10	0.34	1.0	1.00000	ug/L	156207				
THE .	Styrene, Water	ļ	U.39	וען	0.39	1.0	11.00000	mal r	ושפניו	1	06/03/06	ישכטי	1



LABORATORY TEST RESULTS

Job Number: 317105

Date:06/07/2008

CUSTOMER: Buchanan Environmental Associates

PROJECT: GROUNDWATER

ATTN: David Buchanan

Customer Sample (D: NW2-S.WELL Date Sampled....: 06/02/2006 Time Sampled....: 12:15

Sample Matrix....: Water

Laboratory Sample ID: 317105-2 Date Received.....: 06/02/2006 Time Received.....: 14:05

TEST METHOD	PARAMETER/TEST: DESCRIPTION	SAMPLE RESULT	D FLAGS	. HDL	8r	DICUTION	UNITS	BATCH	D3	DATE/JIME	TECH
	1,1,2,2-Tetrachloroethane, Water Tetrachloroethene, Water Tolusne, Water 1,1,1-Trichloroethane, Water 1,1,2-Trichloroethane, Water Trichloroethene, Water Vinyl Chloride, Water Xylenes (total), Water Acetone, Water Carbon Disulfide, Water cis-1,3-Dichloropropene, Water trans-1,3-Dichloropropene, Water Methyl Ethyl Xetone (2-Butanone), Water 2-Hexanone, Water (4-Methyl-2-pentanone (MIBK), Water	0.42 0.42 0.40 0.28 0.62 0.38 2.80 0.95 0.95 0.47 0.47 0.42 0.40 1.08 0.75 0.60	אני ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה	0.42 0.42 0.40 0.28 0.38 0.34 0.95 0.47 0.47 0.42 0.40 1.08 0.75	1.0 1.0 1.0 1.0 1.0 2.0 3.0 2.0 1.0 1.0 2.0 2.0	1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000	49/L 49/L 49/L 49/L 49/L 49/L 49/L 49/L	156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207 156207	The second is to be the second	06/03/06 1850 06/03/06 1850	\\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ \alpha \\ 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\alpha \\ \al
	1,2-Dichloroethene (total), Water			3,51			-9/-		And the second state of the second second second second second second second second second second second second second second second second second second second second second second second second second second second sec		, 1-47



	Job Number.: 317105	QUALITY	CONTRO	L RESULT		rt Date.: 06/0	7/2006
CUSTOMER: B	uchanan Environmental Associa	ites PROJ	ECT: GROUNDWAT	R.	ATTN	David Buchan	angs d
GC Type	Description		Reag. Co.	de Lab	ID Dil	ution Factor	Date Tin
					ş il sortu. İş		340 4
	f: TNRCC 1005 ription.: Direct Analytical T	PH Method TX 1		a): 156335	/L 	EYJenA	t: mep
rco .	Laboratory Control; Sample T	uplicate	GCL051906	156204-1			06/06/2006 28
Para	mmeter/Test Description	QC Result	AC Result	Tr⊔a Value	Orig. Value	Calc. Resul	t * Limits
tralanm Hyo	irocarbons Có - C12, Water	344.380	337.235	333,333333	NO	103	70-130
stroleum Hyd	drocarbona C12 - C28, Water	377.196	384 .625	333.333333	ND	2.1 113	20 70-130
						2.0	20
stroleum Hyd	drocerbons C6 - C35, Water	721.5 7 6	721.861	666.666667	ND	108 0.0	70-130 20
LCS	Laboratory Control Sample		GCL 05 1906	*156204-1	Landing of the second		06/06/2006 22
Para	meter/Test Description	OC Result	QC Result	True Value	Orig. Value	Calc. Resul	t * Limits
troleum Hyd	drocarbons C6 - C12, Water drocarbons C12 - C28, Water drocarbons C6 - C35, Water	337,235 384,625 721,861		333.33333 333.333333 666.666667	ND ND	101.2 115.4 108.3	70-130 70-130 70-130
MB	Method Blank		GC051906	156204-1			06/06/2006 21
Para	ometer/Test Description	OC Result	OC Result	True Value	Orig. Value	Calc. Resul	t * Limits
troleum Hyc	irocarbons C6 - C12, Water	ND					
	irocarbons C12 - C28, Water	ND					
	irocarbons C28 - C35, Water irocarbons C6 - C35, Water	ND ND					
98	Spiked Blank		GCS051906	156204-1			06/06/2006 23
Para	meter/Test Description	QC Result	QC Result	True Value	Orig, Value	Calc. Result	. • Limits
	irocarbons C6 - C12, Water	. 395.484		333.333333	ND	118.6	70-130
	drocarbona C12 - C28, Water	430.902 826.387		333.333333 666.666667	ND ND	129.3 124.0	70-130 70-130
rcrottectin nyt	irocarbons C6 - C35, Water	020.307		000.00000		124.5	
580	Spiked Blank Duplicate		GCS051906	156204-1			06/06/2006 23
Para	ameter/Test Description	.QC Result	AC Result	True Value	Orig. Value	Calc. Result	* Limits
	drocarbons C6 - C12, Water	392.158	395.484	333.333333	ND	117.6	70-130 20
troleum			torante e como en estado de made aparello de carriera de la compansión de	and the second of the second o		3.0	
THE PERSON OF PERSONS ASSESSMENT OF	drocarbons C12 - C28, Water	411.593	430.902	333.333333	ND	123.5 4.6	70-130 20

Page 6 * %=% REC, R=RPD, ASABS Diff., D=% Diff.

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	Job Number.: 317105	Q U A L I T Y	CONTROL	RESULT		t Date.: 06/07/	2006
CUSTOMER: B	uchenen Environmental Associat	es PROJE	CT: GROUNDWATER		ATIN:		
OC Type	Description		Reag. Code	Lab	ID of the	tion Factor	Date Tin
	: SW-846 8260B			ug	/L	Analyst.	: ydy
dethod Desc	ription: Volstile Organics (2	25mL purge)	Batch(s)	: 156207	4. 7. 4. 4		
LCS .	Laboratory Control Sample		V\$053006H				6/03/2006 10
Рага	meter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	" Limits
nzene, Wate	er -	10.4175		10.000000	ND	104.2	58-150
	omethane, Water	10.1059		10.000000	ND	101.1	58- 136
omoform, Wa		9.61263		10.000000		96.1	64-156
omomethane,		11.4709		10_000000		114.7	48-161
	hloride, Water	11.5551		10.000000		115.6	62-154
orobenzene		9.22008		10.000000		92.2	58-152
oroethane,		11.1443		10.000000		111.4	43~170
aroform, W		9.83923		10.000000		98.4	58-154
oromethane	•	9.77684		10.000000		97.8 05. B	31-161 45-140
	omethane, Water	9.58323		10.000000		95.8	65-149
	thone, Water	10.8975		10.000000		109.0	64 - 132 60 - 133
	ethane, Water	10.8215		10.00000		108.2	69-131 53-128
	thene, Water	11.1334		10_000000		111-3	
	oroethene, Water	11,1424		10_000000		111.4 115.8	60-145 60-147
-	chlaroethene, Water	11.5788		10.000000		107.8	62-12B
	propane, Water	10.7826		10.000000		107.8 92.6	70-128
ylbenzene,		9.25842		10.000000		107.2	70-122 53-138
	oride, Water	10.7225 9.42590		10.000000 10.000000		94.3	68-126
rene, Wate		8,90419	-	10.000000		89.0	51-151
	ichloroethane, Water	9.40252		10.000000		94.0	52~145
rachiordet uene, Wate	chene, Water	9.35210		10.000000		93.5	56-149
	rroethane, Water	10.7822		0.00000		107-8	61-141
•	proethane, Water	9.6606B		10.000000	•	96.6	66-129
chloroethe		10.1845		10.000000		101.B	58-153
yl Chloric		11.2833		10.000000	• • • • • • • • • • • • • • • • • • • •	112.8	44-142
enes (tota		27.7916		30.000000		92.6	41-152
tone, Wate		12.2345		10,000000		122.3	38-188
	ide, Water	14.3170		10.000000		143.2	56-163
	propropene, Water	9-63088		10.000000	ND	96.3	49-135
	chloropropene, Water	9.32594		10.000008		93.3	54-155
	Ketone (2-Butanone), Water	10.6692		10.000000		106.7	45-188
exanone, k		10.0706		10.000000		100.7	50-158
	entanone (MIBK), Water	9.41831		10.000000		94.2	54-151
-Dichloroe	ethene (total), Water	22.7212	age of the second	20,000000	ND .	113.6	60-140
	Laboratory Control Sample	<u> </u>	VS053006H :	Man Anthresis	a Ville Ville	0	5/05/2006 11
	ameter/Test Description	OC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
izene, Wate		10.6255		10.000000	ND	106.3	58-150
	omethane, Water	9.65821		10,000000		96.6	58-136
moform, W	ater	9.59307		10,000000		95.9	64 - 156
momethane,	, Water	11.5802		10,000000		115.8	48-161 43-154
	chloride, Water	11.6282		10.000000		116.3	62-154 58-153
orobenzen		9.30359	ingen i de i nære en tæteligen er er ytt engegen i nemen om	10.000000		93.0	58-152 4 3-17 0
oroethane		11.3532	a c , regrego - f stelly oth	10.000000		713.5 93.0	58-154
oroform, i oromethane		9.29632 10.6669		10.000000 10.000000		106.7	31-161
	•						

6310 Rothway Drive - Houston, TX 77040 - Tel: 713 690 4444 - Fax: 713 690 5646 - www.stl-inc.com

SEVERN STL

CUSTOMER: Buchanan Environmental Assoc	intes PROJE	CT: GROUNDWATER			t Date.: 06/6	U//2006
OC Type Description		Reag. 'Code		1	tion Factor	Date Time
LC5 Laboratory Control Sample	*	VS053006H;				06/05/2006 1130
Parameter/Test Description	OC Result	QC Result	True Value	Orig. Value	Calc. Resu	*:.:
bromochloromethane, Water	8.99328		10.000000		89.9	65-149
1-Dichloroethane, Water 2-Dichloroethane, Water	10.8808		00000000		108.8 107.0	64-132 69-131
1-Dichloroethene, Water	10.6973 10.9757		10.000000 10.000000		109.8	53-128
s-1,2-Dichloroethene, Water	11.1072		10.000000		111.1	60-145
ans-1,2-Dichloroethene, Water	11.3954		10.000000		114.0	60-147
2-Dichloropropane, Water	10.6292		10.000000		106.3	62-128
hylbenzene, Water Ethylene Chloride, Water	9.49830 10.0313		10.000000 10.000000		95.0 100.3	70-122 53-138
yrene, Water	9.64974		10,000000		96.5	68-126
1,2,2-Tetrachloroethane, Water	8.72363		10.000000	ND	87.2	51-151
trachloroethene, Water	9.40899		10.000000		94-1	52-145
luene, Water 1,1-Trichloroethane, Water	9.53248 10.9236		10.000000 10.000000		95.3 109.2	56-149 61-141
1,2-Trichloroethane, Water	9.55849		10.00000		95.6	66-129
ichloroethene, Water	10.5124		10.000000		105.1	58-153
nyl Chloride, Water	11.2144		10.000000		112.1	44-142
lenes (total), Water	28.4197		30.000000		94.7	41-152
etone, Water	9.08093		10.000000 10.000000		90.8 147.2	38-188 56-163
rbon Disulfide, Water s-1,3-Dichloropropene, Water	14.7189 8. 9 05 76		10.000000		89.1	49-135
ans-1,3-Dichloropropene, Water	8.75352		10.000000	**	87.5	54-155
thyl Ethyl Ketone (2-Butanone), Water	10.1490		80 000000		101.5	45-188
			10.000000			
Mexanone, Water	9.73501		10.000000	ΔN	97.4	50-158
				ДИ ДИ		
Mexanone, Water Methyl-2-pentanone (MIBK), Water	9.73501 9.34522	NS053006C	10.00000 10.00000	ДИ ДИ	97.4 93.5	50-158 54-151
Mekanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water	9.73501 9.34522	vs053006c	10.00000 10.00000	ДИ Ди	97.4 93.5 112.5	50-158 54-151 60-140
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water MB Mechod Blank Parameter/Test Description enzene, Water	9.73501 9.34522 22.5026	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description enzene, Water comodichloromethane, Water	9.73501 9.34522 22.5026 GC Result	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description enzene, Water comodichloromethane, Water comoform, Water	9.73501 9.34522 22.5026 GC Result	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description enzene, Water comodichloromethane, Water comomothane, Water	9.73501 9.34522 22.5026 GC Result	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description enzene, Water comodichloromethane, Water comoform, Water	9.73501 9.34522 22.5026 GC Result ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description mazene, Water comodichloromethane, Water comomethane, Water corobenzene, Water cloroethane, Water	9.73501 9.34522 22.5026 GC Result NO ND ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description enzene, Water comodichloromethane, Water comomethane, Water incon Jetrachloride, Water illorobenzene, Water illorotethane, Water illorotethane, Water illorotethane, Water	9.73501 9.34522 22.5026 GC Result NO ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description enzene, Water composithloromethane, Water composithloromethane, Water composition letrachloride, Water clorobenzene, Water cloroform, Water cloroform, Water cloroform, Water cloroform, Water	9.73501 9.34522 22.5026 GC Result ND ND ND ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
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Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description enzene, Water comodichloromethane, Water comoform, Water comoform, Water comoform, Water comoformethane, Water comoformethane, Water comoformethane, Water comoformethane, Water comodichloromethane, Water comodichloromethane, Water comodichloromethane, Water 1-Dichloroethane, Water 2-Dichloroethane, Water	9-73501 9-34522 22-5026 GC Result NO ND ND ND ND ND ND ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description enzene, Water comodichloromethane, Water comomethane, Water comomethane, Water comomethane, Water comomethane, Water clorobenzene, Water clorotethane, Water cloromethane, Water cloromethane, Water cloromethane, Water cloromethane, Water 1-Dichloroethane, Water 1-Dichloroethane, Water 1-Dichloroethane, Water	9-73501 9-34522 22-5026 GC Result NO ND ND ND ND ND ND ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description enzene, Water comodichloromethane, Water comomethane, Water comomethane, Water clorobenzene, Water cloroethane, Water cloroethane, Water cloromethane, Water cloromethane, Water cloromethane, Water cloromethane, Water cloromethane, Water clorobenzene, Water	9.73501 9.34522 22.5026 GC Result NO ND ND ND ND ND ND ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description Macene, Water Momomethane, Water Momomethane, Water Moroethane, Water 1-Dichloroethane, Water 1-Dichloroethane, Water 1-Dichloroethane, Water 1-Dichloroethane, Water 1-Dichloroethane, Water 1-Dichloroethane, Water s-1,2-Dichloroethene, Water	9-73501 9-34522 22-5026 GC Result NO ND ND ND ND ND ND ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
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Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water MB Mechod Blank Parameter/Test Description Macene, Water comodichloromethane, Water comoform, Water comomethane, Water comomethane, Water comomethane, Water comomethane, Water comomethane, Water comomethane, Water cloroethane, Water cloroethane, Water cloroethane, Water 1-Dichloroethane, Water 1-Dichloroethane, Water 2-Dichloroethane, Water cans-1,2-Dichloroethene, Water cans-1,2-Dichloroethene, Water cans-1,2-Dichloroethene, Water chylbenzene, Water chylbenzene, Water chylene Chloride, Water cyrene, Water 1,2,2-Tetrachloroethene, Water	9-73501 9-34522 22-5026 GC Result NO ND ND ND ND ND ND ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246
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Mexanone, Water Methyl-2-pentanone (MIBK), Water 2-Dichloroethene (total), Water MB Method Blank Parameter/Test Description mazene, Water comodichloromethane, Water comoform, Water comomethane, Water comomethane, Water comomethane, Water comomethane, Water comomethane, Water comomethane, Water comomethane, Water cloroform, Water cloroethane, Water cloroethane, Water 1-Dichloroethane, Water 2-Dichloroethane, Water s=1,2-Dichloroethene, Water cans=1,2-Dichloroethene, Water chylbenzene, Water chylbenzene, Water chylbenzene, Water chylene Chloride, Water chylene, Water c	9-73501 9-34522 22-5026 GC Result ND ND ND ND ND ND ND ND ND ND ND ND ND	1:	10.00000 10.00000 20.000000	MD MD	97.4 93.5 112.5	50-158 54-151 60-140 06/03/2006 1246 It * Limits F



	Job Number.: 317105	Q D A L I T Y	CONTROI	. R	ESULI	1 3	Repor	t Date.:	06/07	7/2006	
CUSTOMER: BL	uchanan Environmental Associ	ates PROJEC	T: GROUNDWATE				A)TN:				200
ас туре	Description		Reag. Cod		Lab	ID	Ditu	tion Fact	or	Oate	Time
48	Method Blank	y	vs053006C						: 3	06/03/2006	1246
Parad	meter/Test Description	OC Result	QC Result	True	Value	Orig.	Value	Catc. F	tesul 1		
1,2-Trichlorichloroether hyl Chloride lenes (total etone, Water rbon Disulfi s-1,3-Dichle ans-1,3-Dich thyl Ethyl) Mexanone, Wa Methyl-2-per	e, Water 1), Water r ide, Water propropene, Water hioropropene, Water Ketone (2-Butenone), Water	AN ON ON ON ON ON ON ON ON ON ON									
fB	Method Blank		VS053006C					arii ya a giili ia a an a garanta wa awa a ga a bata g	: 12.7 24.7	06/05/2006	1402
Parar	meter/Test Description	QC Result	QC Result	True	Velue	Orig.	Value	Calc. R	tesul 1	Limits	.
omoform, War omomethane, rbon Tetraci, lorobenzene, lorobenzene, loroform, Wa loromethane, bromochlorod 1-Dichloroed 2-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dichloroed 1-Dic	Water hloride, Water , Water Water uster ater , Water methane, Water thane, Water thane, Water thene, Water oroethene, Water nopane, Water aride, Water folloroethane, Water folloroethane, Water folloroethane, Water for the Water r cothane, Water r cothane, Water ne, Water e, Water L), Water f	NO ND ND ND ND ND ND ND ND ND ND ND ND ND									· · · · · · · · · · · · · · · · · · ·
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* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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17.9477 9-99850 10.000000

9.723 ND 82 100 22-123 60-140

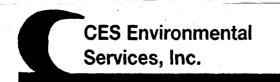
Page 10

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	Job Number.: 317105	QUALITY	CONTROL	RESULT	S Repor	t Dare.: 06/0	7/2006
CUSTOMER: 8	Ouchenan Environmental Assi	ociates PROJEC	T: GROUNDWATER	uda uruman iri da kalendari Perterbahan da da kalendari	ATTN		
ac Type	Description	on .	Reag. Code	Lab)	D D1Lu	tion Factor	Date Time
MS	Matrîx Spîke		VS053006E	317123-12	100.	00000	06/05/2006 150
Para	ameter/Test Description	△C Result	QC Result	True Value.	Orig. Value	Calc. Resul	z * Limits
rans-1,2-016	hlorosthene, Water	10.1405		10.000000	ND	101	60-140
•	propane, Water	10.8980		10.000000	ND	109	60-140
thylbenzene		8.77773		10.000000	ND ND	88 87	60-140 60-140
,	oride, Water	8.74665 7.87214		10.000000	ND ND	79	60-140
tyrene, Wate	echloroethane, Water	B.79744		10.000000	ND	88	60-140
etrachloroet		9,12096		10.000000	ND	91	60-140
oluene. Wate	•	9.05927		10.000000	ND	91	76-125
	oroethane. Water	10.2931	•	10.000000	ND	103	60-140
	roethane. Water	9.19570		10.000000	ND	92	60-140
richloroethe	ene, Water	10.0604		10_000000	ND	101	56-118
inyl Chloric	le, Water	11.2272		10.000000	ND	112	60-140
ylanes (tata	al), Water	26.6231		30.000000	NO	89	60-140
cetone, Wate		12.4097		10.000000	ND	124	60~140
arbon Disulf		10.5984		10.000000	ND	106	60-140 60-140
	.oropropene, Water	8.40873		10.000000	ND NO	84 94	60-140
	hloropropene, Water	9.38814		10.000000	ON ON	110	60-140 60-160

Economy Polymers 1971 Prof # 1971



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/19/2006

Dear Zac McKaughan or Dave Esman

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1971

Generator: Economy Polymers
Address: 435 E Anderson

Houston, TX 77047

Waste Information

Name of Waste: Recyclable ethylene glycol

TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste: Unused ethylene glycol 50% in 55 gallon steel drums

Color: green

Odor: none

pH: na

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676 http://www.cesenvironmental.com

1971

TCEQ Industrial Solid Waste Permit No: 39048 ISWR No: 30900 U.S. EPA ID No: TXD008950461

	rator Information						
Company:	Economy Polymer	š <u> </u>					-
Address:	435 E. Anderson						
City, State, Zip:	Houston, TX 7704						
Contact:	Many Chowdary		Title:	Supervisor			
Phone No:	713-723-8416		Fax No:	936-483-3674	<u>·</u>		
24/hr Phone:	THE STATE OF						
U.S. EPA I.D. No:	TXCESQG			al /			
State I.D.	CESQG		,SIC Code:	NA			en alle and a second and a second and
20000001 A DOWN					The state of the state of	1	
	g Information - S	ame as Above					
Company: Address:	CKG Services	0.4					
City, State, Zip:	10707 Honea Egypt I				· · · · · · · · · · · · · · · · · · ·		<u></u>
Contact:	Montgomery, TX 77: Traci Fisher	Title:	Office Manage				Formatted
Phone No:	936-483-3662	Fax No:	Office Manage 936-483-3674	<u>r</u>			Formatted
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	ecyclabble Ethylene Gi					10.7	, <u> </u>
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SECTION 4: Physical and Chemical Data	·			
COMPONENTS TABLE	Concentration	Units		· · · · · · · · · · · · · · · · · · ·
The waste consists of the following materials	Ranges are acceptable	or %	The second	
Water Ethylone Chical	50	%		
Ethylene Glycol	50	%		
		+		
· ·	<u> </u>			
SECTION 5: Safety Related Data	_			
If the handling of this waste requires the use of special protective equ Level DPPE	ipment, please explain.			
SECTION 6: Attached Supporting Documents	<i>p</i>			
List all documents, notes, data, and/or analysis attached to this form MSDS	as part of the waste approval packa	ge		Formatted
	grand the second of the second			
SECTION 7: Incompatibilities				
Please list all incompatibilities (if any):				Formatted
None				
SECTION 8: Generator's Knowledge Documentation				
SECTION OF CENTRAL STRUCTURES DOCUMENTATION				
Laboratory analysis of the hazardous waste characteristics, listed bel	ow, WAS NOT PERFORMED base	d upon the	following	
generator knowledge:				
TCLP Metals: X				
TCLP Volatiles: X				•
TCLP Metals: X TCLP Volatiles: X TCLP Semi-Volatiles: X Reactivity: X Corrosivity: X Ignitability: X				
Corrosivity: X				
Ignitability: $\overline{\underline{X}}$				
SPOTIONA C				
SECTION 9: Generator's Certification				
The information contained herein is based on \(\subseteq \text{generator knowledge a} \) attached description is complete and accurate to the best of my know omissions of composition properties exist and that all known or suspect tested are representative of all materials described by this document.	ledge and ability to determine that r	no deliberate	or willful	
\mathcal{N}				
Authorized Signature:	Date: 12/18/06		-,	Formatted
Printed Name/Title: No Signature Required				Formatted
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CES USE ONLY (DO NOT WRITE IN THIS SPACE)		· -		Formatted
			1	
Compliance Officer: Lathert Hayd Add	itional Information:			
Date: 12-19-06 Approved Rejected	REC	, .		
Approval Number: 1931				

SECTION 10: Waste Receipt Classification Under 40 CFR 437

Is this material a wastewater or wastewater sludge?

YES NO

2

PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.

Meta	's Subcategory: Subpart A				
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electrol Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment	* *	operations		-
Oils S	Subcategory: Subpart B			age of the same	
	Used oils Oil-water emulsions or mixtures Lubricants Coolants		TE TO A STATE		4 €
	Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water				
	Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste				
	Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes				
<u>Orga</u>	nics Subcategory: Subpart C				
	Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation				
	Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources				
		•			

- (1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
- If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

	Cadm	itum: 0.2 mg/L	
	Chron	mium: 8.9 mg/L	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Coppe	er: 4.9 mg/L	Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie
	Nicke	sl: 37.5 mg/L	
(3)		waste contains oil and grease less than 100 mg/L, and does not have above any of the values listed above, the waste should be classified	
		Metals Subcategory	
		Oils Subcategory	
	5 2		

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

Material Safety Data Sheet

Science Stuff, Inc. 1104 Newport Ave Austin, TX 78753

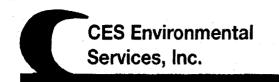
Phone (512) 837-6020 Chemtrec 800-424-9300 24 Hour Emergency Assistance

Section 1 Ide	entification						Section 6 A	ccidental Re	elease Measur	es
Product	C1722 -						Absorb spill with	h inert material,	then place in a che	emical waste
Number:		Health:		· · · · · · · · · · · · · · · · · · ·	2		container. Dispo	ose of in a man	ner consistent with	federal, local
Product Name:	Ethylene Glycol Laboratory Grade	Flammab Reactivity			1 0		Section 7 H	andling and	Storage	
Trade/Chemical Synonyms		11	•	loderate High Ex	treme		Store in a cool, materials. Wash		ited place away fro er handling.	m incompatible
	HOCH'CH'OH	0 NA = Not Establish		2 3 cable NE = Not	4		Section 8 Ex Protection	posure Cor	itrols & Persor	nal
	KW2975000 CAS# 107-21-1	Establish	eu			ш	Respiratory Prot	ection:None red	quired	
Section 2 Co	mponent Mixtu	ire						Mechanical:	Hand Wear Protection: expos	appropriate s to prevent skin
Sara 313 Compon	ent CAS Number	%	Dim	Exposure Limits			Ventilation:	Local Exhaust:	Eye Protection:	
Ethylene Glycol	CAS# 107-21	-1 100%	v/v	OSHA PEL 127 mg/mf (50 ppm)				tive Equipn	nent: Wear app	
				ceiling, Vapor &	inist				Chemical Prop	erties
Section 3 Ha	zard Identificat	tion (Als	o se	e section 11)						1.115 @20 C
Avoid breathing v	heat and ignition so apor or dust. Use v nd clothes. Wash ti	vith adequa	ate ve	ntilation. Avoid co	ntact		Boiling Point:	-13 Deg C >197 Deg C	Specific Gravity Percent Volatile by Volume:	1.115 @20 C
closed.			inter in	anding. Reep col	Thumber 1	╢	Vapor Pressure:	0.08 mmHG	Evaporation Rate:	0.01
	st Aid Measure		, bo b	ormful if awallows			Vapor Density:	2.1	Evaporation Standard:	Butylacetate =1
Avoid breathing v with eyes, skin, a	vapor or dust. Use v and clothes. Wash the	vith adequa	ite vei	ntilation. Avoid co	ntact		Solubility in Water:	Soluble	Auto ignition Temperature:	Not applicable
	l: Remove contamir				a with		Appearance and Odor:	Colorless mildly sweet liquid	Lower Flamm. Limit in Air:	3.2 approximate
EYES: Wash eye	f symptoms persist s with plenty of wat	er for at lea	ast 15	minutes, lifting lic			Flash Point:	116.1 C (241 F)	Upper Flamm. Limit in Air:	15.3 approximate
	ek Medical Aid. INH. rtificial respiration. I						Section 10 S	Stability and	Reactivity Info	rmation
	wallowed, induce vo Never give anythin						Stability: Stable		s to Avoid: None k	nown
Section 5 Fire	e Fighting Mea	sures					Strong acids, ba	ases, strong oxi		
Fire Extinguisher				n for larger fires.			Carbon dioxide	, carbon monox	ide	
Type: Fire/Explosion Hazards:	Carbon dioxide	-					Hazardous Poly Condition to Ave			
Fire Fighting	Wear self-contai			pparatus and Mact with skin and	,	ш	Section 11 A			
Procedure:	clothing.						nausea,blurred v contact may cau aggravate existir	vision, and cent se irritation, tea ng kidney condi ny problems ma	discomfort, pain or ral nervous system r production, redne tion. Persons with p y be more suscepti system.	disorders. Eye ss. May preexisting eye,
•							DOT Classification	on: Not Regulat	ed	
	•					Ш	the most recent	version of the re	om time to time. Ple elevant regulations.	
audus vari vari dir. Visagar savus sagri arti Huch ayan si	au in de restaure d'une la colonida de l'adeque au comme	er og gjerner og en sterner til ett som til en sterner til en som til en sterner til en sterner til en sterner		Contract to the contract to th	Committee temperature	憪	Revision No:0	Date Entered:	9/1/2005 Approv	ea by: VVPF

The information contained herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty is expressed or implied regarding the completeness or accuracy of this information, whether originating from Science Stuff, Inc. or from an alternate

source. Users of this material should satisfy themselves by independent investigation of current scientific and medical information that this material may be safely handled.

1972 Praxain (1x city - sterling) Prof # 1972



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/19/2006

Dear Rocky McWhorter

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1972

Generator: Praxair (Texas City-Sterling Chemical Plant)

Address: 703 6th St. South

Texas City, TX 77590

Waste Information

Name of Waste: Natural gas condensate wastewater

TCEQ Waste Code #: Product

Container Type:

Detailed Description of Process Generating Waste:

Condensate water from a process which compresses natural gas. The gas is compressed a condensate from the air form on copper tubes.

Color: na

Odor: na

pH: 3-11

Physical State:

Incompatibilities: na

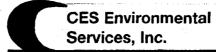
Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

Fax: (713) 676-1676



TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Genera		e a como al presente en entre en la compansa en en el compansa de mandre en entre en el compansa en el compans La compansa de la compansa en el compansa en el compansa en el compansa en el compansa en el compansa en el co	and the state of t	in the second of
Company:		Sterling Chemical Plant)	·	
Address:	703 6 th Street South			
City, State, Zip:	Texas City, TX 7759	90		
Contact:	Jon Dobbs		Title: Plant	Engineer
Phone No:	409-943-9203		Fax No:	
24/hr Phone:			·	
U.S. EPA I.D. No:	77			•
State I.D.	NA		SIC Code:	14
			·	
SECTION 2: Billing	Information – 🔲 Sai	me as Above		
	Praxair Inc			
Address:	PO Box 3777			
City, State, Zip:	Texas City, TX 77592			
Contact:		Title:		
Phone No:		Fax No:		
				
SECTION 3: Genera	al Description of the V	Vaste		
Name of Waste: Nati	ural Gas Condensate wa	astewater		
			from a process which	compresses natural gas. The gas is
	ensate from the air form			
Physical State:	□ Liquid	Sludge] Powder	
•	☐ Solid	Filter Cake	Combination	
	Solid	L I HILL Cano	Compination	
Color: NA	Uđ	or: <u>NA</u>		
Color. INA	- U	UI: INA	*	
C Charita (mak	: :11.00.1	P		
Specific Gravity (wat	er=1): <u>09-1</u>	Density: 8 lbs/gal		
	_			
Layers:	Single-phase	☐ Multi-phase		
•	<u>.</u> .	· 		_
Container Type:	⊠ Drum	⊠ Tote □	Truck	Other (explain)
Container Size:	<u>55 gal</u>	300 gal		
	Francisco	and the second second		
	,,		^ · • F	TT 47 1
Frequency:	Weekly	☐ Monthly	Quarterly	_ Yearly
Number of Units (con	ıtainers): <u>5</u>	Other:		
Texas State Waste Co	ode No: Produ	uct		
Proper U.S. DOT Shi	inning Name:	Non-RCRA/Non-DOT	Pegulated Material	
•	•			
Class: NA	UN/NA:	NA	PG: NA	RQ: NA
				
Flash Point	1 . ,	Reactive Sulfides	Reactive Cyanides	
>140		<u>20</u> mg/l	<20mg/l	0-1%
Oil&Grease	TOC		Copper	Nickel
>1500mg/l	NAmg/l	NAmg/l	NAmg/I	NAmg/l

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE	Concentration	Units or %	
The waste consists of the following materials	Ranges are acceptable		
Natural Gas Condensate	90-98	%	
Water	0-2	%	
Dirt/Sand/Silt	0-1	%	

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain.

Standard PPE

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. \underline{NA}

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

NA

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals:

TCLP Metals are below regulatory limits

TCLP Volatiles:

TCLP Volatiles are below regulatory limits

TCLP Semi-Volatiles:

TCLP Semi-Volatiles are below regulatory limits

No reactive sulfides or cyanides are introduced into the process

Reactivity:

pH is neutral

Corrosivity: Ignitability:

No ignitable materials are in the process

SECTION 9: Generator's Certification

·	
The information contained herein is based on \(\subseteq \text{generator knowledg} \)	ge and/or analytical data. I hereby certify that the above and
attached description is complete and accurate to the best of my kn	lowledge and ability to determine that no deliberate or willful
omissions of composition properties exist and that all known or susp	pected hazards have been disclosed. I certify that the materials
tested are representative of all materials described by this document.	
4/14	
Authorized Signature: W/A	Date:

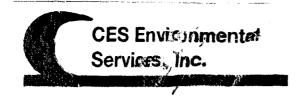
Printed Name/Title: No signature needed			
		_	
CES USE ONLY (DO NOT WRITE IN THIS SPACE)			
Compliance Officer: fathently	Additional Information:		
Date: 12-19-06 Approved Rejected			
Approval Number: 1972		*	
Approval Number.			

5	SECTION 10: Waste Receipt Classification Under 40 CFR 4	<u>137</u>	To a series of the series of t	
·	s this material a wastewater or wastewater sludge? YES	⊠ NO		
I	f 'Yes', complete this section.	en en en en en en en en en en en en en e		
	DIFACE CHECK THE ADDDODDIATE DOV. IE NO ADDD	ODDIATE CATECODY	CO TO THE NEVT DA	CE
1	PLEASE CHECK THE APPROPRIATE BOX. IF NO APPRO	JPKIATE CATEGORT,	, GO TO THE NEXT PA	GE.
<u>Me</u>	tals Subcategory: Subpart A			
	Spent electroplating baths and/or sludges			
	Metal finishing rinse water and sludges			
	Chromate wastes			
Ц	Air pollution control blow down water and sludges	Region of the State of	The state of the s	
$^{\prime}$ $^{\prime}$	Spent anodizing solutions		· ·	
片	Incineration wastewaters			
님	Waste liquid mercury			
片	Cyanide-containing wastes greater than 136 mg/l			
片	Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from ele	ectroplating or phosphati	na operations	
片	Vibratory deburring wastewater	cuopianing or phosphani	ng operations	
H	Alkaline and acid solutions used to clean metal parts or equi	nment		
	Timeline and sold bold for sold to block whom parts of equal	Pinelle		
Oil	Subcategory: Subpart B			
	A .		•	
	Used oils			
	Oil-water emulsions or mixtures			
	Lubricants			
Щ	Coolants			
	Contaminated groundwater clean-up from petroleum sources	5		
님	Used petroleum products			
님	Oil spill clean-up			
H	Bilge water Rinse/wash waters from petroleum sources			
H	Interceptor wastes			
片	Off-specification fuels			
H	Underground storage remediation waste	,		
П	Tank clean-out from petroleum or oily sources			
	Non-contact used glycols			
	Aqueous and oil mixtures from parts cleaning operations			
	Wastewater from oil bearing paint washes			
<u>Org</u>	anics Subcategory: Subpart C			
_	T 1011 leashed			
님	Landfill leachate			
님	Contaminated groundwater clean-up from non-petroleum sor	urces	and the second second	
H	Solvent-bearing wastes Off-specification organic product		•	
H	Still bottoms			
H	Byproduct waste glycol			
H	Wastewater from paint washes			
Ħ	Wastewater from adhesives and/or epoxies formulation			
	Wastewater from organic chemical product operations			
	Tank clean-out from organic, non-petroleum sources			

(1)	II tile	waste contains on and grease a	at of ill excess o	1 100 mg/1	, the wast	e should b	e ciassii	iea iii ti	ie ons s	uocatego	ory.
(2)		waste contains oil and grease l values listed below, the waste						below	n conce	entration	s in excess
	Chrom Coppe	ium: 0.2 mg/L nium: 8.9 mg/L or: 4.9 mg/L l: 37.5 mg/L									
(3)		waste contains oil and grease l above any of the values listed								omium,	copper, or
*		Metals Subcategory				** . *	τ.,		ere e		e e e e e e e e e e e e e e e e e e e
		Oils Subcategory									
		Organics Subcategory									
SECTION	ON 11:	Additional Instructions									

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

A 2 09 8-4-09 LA 34



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/21/2006

Dear KiM Stratton

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1973

Generator: Dixie Chemical

Address: 10901 Bay Area Blvd

Pasadena, TX 77507

Waste Information

Name of Waste: Succinic anhydride (Off-spec material)

TCEQ Waste Code #: 00314091

Container Type:

Detailed Description of Process Generating Waste:

Off-spec succinic anhydride (heated in the trailer)

Color: white flakes

Odor: pungent

pH: 2.6

Physical State:

Incompatibilities: water, acids, bases, oxidizing agents

Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021

(713) 676-1460 Fax: (713) 676-1676 http://www.ccscnvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900 #1973

SECTION 1: General	tor Information
Company:	Dixie Chemical
Address:	10901 Bay Aren Blud
City, State, Zip:	PAGAdena TY 77507
Contact:	King ofsetton Title: President
Phone No :	241-291-3380 Fax: 281-291-3387
24 / HR Phone :	
U.S EPA I.D No :	TX0008088247
State 1.D :	30314 SIC Code 2869
SECTION 2: Billing	Information
Company:	Dixie Chemical
Address :	10901 BAY ASER Blud
City, State, Zip:	Pasadena TK 77507
Contact:	Kim Shinkon Title:
Phone No:	281. 7.91.3380 Fax:
SECTION 3. C	I Planariation of the Winds
	Description of the Weste
Name of Waste:	succinic anniariae (material off spec.)
	Succinic anhydride heated in the trailer).
Physical State:	☐ Uquid ☐ Sludge ☐ Powder
•	Solid Filter Cake Combination
Color:	Water=1): 21 Density: 10.2 lbs/gal
Specific Gravity (N	Water=1): \ Density: \ \O 2 bs/gal
Layers:	∐ Single-Phas ☐ Multi-Phase
Container Type:	☐ Drum ☐ Tote Truck ☐ Other (explain)
Container Size :	5000 gal
Number Of Units :	
	e Code No : 003/409/
	Waste Code No: NON RCRA NON DOT REGulated material
i iopai o.o. Cibic	MON TON THE MON DOL TEGOTATE A MARKET
Cises: With	UNINA: N/R. PG: N/A RO: N/A
E Tinah Point	pri i Reactive Sulfides Reactive Cyanicies Solids
CI -	TO WA THE WAR THE
4-19	
j They Der	TOP Zing Copper Nickel
MA	WA mont WA mont WA man
	· · · · · · · · · · · · · · · · · · ·

SECTION 4: Physical and Chemical Data

Succinic Anhydride Worter

3%

SECTION	5-	Safen	Palabad	Date

If the handling of this waste requires the use of special protective equipment, please explain.

SECTION 5: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package.

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

ACTUS, bases, Oxidizing Agents

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, fisca below, WAS muc removement below and following generators knowledge

TCLP Metals:

The committee.

TO SOLUMENTARIAS :

Reactivity:

1,41,28-45,235/20 t

The second to the second of th

dicatorna I cartify that the materials tenders are record.

Low Start War Ken St

KIM STRATTON / ENV. SPECIALIST

12/20/06

It will be remanifested to WM & BFI as CES'

Class 1 lignid.

SECTI	ON 10; Waste Receipt Classification Under 40 CFR 437
	material a wastewater or wastewater sludge ? TYES XNO
If YE	5', complete this section
PLEA	SE CHECK THE APPROPRIATE BOX: IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE
Matai	s Subcategory: Subpart A
רו	Spent electroplating baths and/or Signification
$\bar{\Box}$	Metal finishing ripse water and sludges
1.1	Chromate wastes
	Air politibus control blow ตัวพิท พลโลก ลกตี studges
10.7	Spent avodizing splutions
\Box	Incineration wastewaters
	en para interprise
 	Chabigo Continuo margine promise gales 2000 1000 1000
- T	
<u> </u>	Waste acids and bases with or without metals
ا	Cleaning, rinsing, and surface proparation solutions from electropicting or phospha
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MATERIAL SAFETY DATA SHEET

DIXIE CHEMICAL COMPANY, INC.

P.O. Box 130410 Houston, TX 77219-0410

(713) 863-1947

FAX: (713) 863-8316

SECTION 1 - CHEMICAL IDENTIFICATION

Trade Name:

Succinic Anhydride

Date of Issue: June 17, 2004

Synonyms:

SAA, Succinic Acid Anhydride;

Revised Date: June 16, 2006

Tetrahydro-2,5-dioxofuran; Dihydro-2,

5-furandione; Succinyl oxide;

Butanedoic Anhydride

Formula:

 $C_4H_4O_3$

Chemical Family:

Anhydride

Chemical Use:

Chemical intermediate

Information

(281) 474-3271

Telephone Number: **Emergency Number:**

Chemtrec

(800) 424-9300 Domestic

(703) 527-3887 International

HMIS Hazard Rating

Health:

2 1 4 = Extreme

Fire:

3 = High

Reactivity: 0 2 = Moderate

PPE rating to be supplied by user

1 = Slight

depending on use conditions.

0 = Least

SECTION 2 – HAZARDS IDENTIFICATION

Eye Contact:

May cause severe irritation or burns. May cause permanent damage.

Skin Contact:

May cause irritation, redness, swelling, and drying. Dermatitis may result from

repeated contact. May cause skin sensitization.

Eye Contact:

May cause severe irritation or burns. May cause permanent damage.

Ingestion:

Effects are unknown. May cause irritation, pain, nausea, and vomiting.

SECTION 3 - COMPOSITION

Components

Percentage

TLV

CAS#

Succinic Anhydride

Not Established

108-30-5

SECTION 4 – FIRST AID MEASURES

Inhalation:

Remove victim to fresh air. Get medical attention. If breathing is difficult, give

oxygen. If not breathing, administer artificial respiration.

Skin Contact: Immediately remove contaminated clothing and shoes. Wipe excess material from

skin and flush with water for at least 15 minutes. Use soap if available or follow by

washing with soap and water. Get medical attention.

Eye Contact: Immediately flush with plenty of water for at least 15 minutes, occasionally lifting the

upper and lower lids. Get medical attention.

Ingestion: DO NOT INDUCE VOMITING. DO NOT ATTEMPT CHEMICAL

NEUTRALIZATION. MATERIAL REACTS VIGOROUSLY WITH ANACIDS.

GET MEDICAL ATTENTION.

SECTION 5 – FIREFIGHTING MEASURES

Extinguishing Media: Use water, foam, dry chemical, or carbon dioxide (CO₂). Material reacts with

water to produce heat and Succinic Acid. Use water in flooding quantities to

fight fire.

Special Firefighting

Procedures/Precautions:

Firefighters should wear NIOSH approved self-contained breathing apparatus. Responders should wear protective clothing to prevent skin contact. Move

containers from fire area. If unable to move, cool sealed containers with water.

Unusual Fire and

Toxic vapors such as oxides of carbon, aldehydes, and organic acids will be

Explosion Information:

emitted upon thermal decomposition.

Environmental Note:

Prevent entry into waterways.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Protective Measures: Evacuate area of unprotected personnel. Eliminate sources of ignition. Stay upwind and out of low areas. Wear personal protective equipment (See section 8) when responding to spills.

Spill Management: Stop source of leak if safe to do so. Dike and contain spill. Use water spray (fog) to reduce vapors. If vapor cloud forms, blanket area with water fog and foam. Use vacuum truck or pump to storage/salvage vessels. Clean up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. Spray area with water to remove trace residue. Contain run-off from residue flush and dispose of properly. Prevent entry into waterways, sewer, or confined areas. Remove contaminated trace residues from soil and dispose of in same manner as material. For small spills, clean up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and dispose of material properly.

Disposal: Proper disposal should be evaluated based on regulatory status of this material (refer to section 13).

SECTION 7 - HANDLING AND STORAGE

Containers do not have to be grounded and bonded when material is transferred, but it is recommended as a good practice. Store in a cool, dry place. Keep away from heat, sparks, and flames.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Respiratory Protection: NIOSH approved respiratory protection for organic vapors.

Ventilation: Utilize local exhaust to control high vapor connections in confined areas.

Utilize appropriate impervious chemical gloves. Protective Gloves:

Chemical goggles and possibly a face shield. Have eyewash facilities readily Eye Protection:

available.

Other Protective

Equipment:

Wear additional protective clothing to prevent skin contact. This may include

chemical resistant boots and chemical resistant suits.

Work Practices: Use good personal hygiene practices. Wash hands before eating, drinking,

smoking or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before reuse. Shower after work using plenty of soap and water.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 261°C (502°F) Melting Point: 119° C (246°F)

100 Molecular Weight:

Volatility/Vol. (%): Not Established

Vapor Pressure (mm Hg): 1 mm Hg at 92°C (198°F) (Sublimes)

3.5 (calculated as monomer) Vapor Density (Air = 1): Hydrolysis slowly to diacid. Solubility in H₂O:

Appearance/Odor: White flakes / Pungent odor.

Odor Threshold: Not Established Specific Gravity ($H_2O = 1$): 1.24 @ 4°C (20°F)

2.6 (1% aqueous mixture) pH:

Not Established Evap. Rate (Butyl Acetate = 1):

Flash Point: 147°C (297°F) PMCC, ASTM D93

Not Established Lower Explosive Limit: Not Established Upper Explosive Limit:

Not Established Autoignition Temperature:

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable to 261°C (502°F). (May turn gray on standing in molten state)

Aerosols may hydrolyze to Succinic acid in moist air.

Conditions to Avoid: Sources of ignition and incompatibles. Will react with water to produce

free acid and heat.

Incompatible Materials: Water, acids, bases, and oxidizing agents

Decomposition Products: Oxides of carbon.

May occur at higher temperatures. Hazardous Polymerization:

SECTION 11 – TOXICOLOGICAL INFORMATION

Carcinogenicity listed by: NTP: No IARC: No OSHA: No

ACGIH Succinic Anhydride TLV: Not Established STEL: Not Established

OSHA Succinic Anhydride PEL: Not Established STEL: Not Established

Inhalation: LCLo 750 mg/m³ (rat)

Skin: LD50: 4920 mg/kg (rat)

Ingestion: LD50: 914 mg/kg (rat)
Injection: LD50: 100 mg/kg (rat)

SECTION 12 – ECOLOGICAL INFORMATION

No data available.

SECTION 13 – DISPOSAL INFORMATION

Place in a city, state, or federally permitted disposal facility. Handle in accordance with all applicable regulations.

SECTION 14 – TRANSPORTATION INFORMATION

Proper Shipping Name:	Not considered hazardous for shipping.
Primary Hazard Class:	Not applicable.
Secondary Hazard Class:	Not applicable.
Identification Number:	Not applicable.
Packing Group:	Not applicable.
Reportable Quantity:	Not applicable.
Marine Pollutant:	Not applicable.
Label(s) Required:	Not applicable.

SECTION 15 - REGULATORY INFORMATION

TSCA: All substances are listed on, or are exempt from reporting.

TSCA 12(b) Export Notification: Not Listed

California Proposition 65: Not Listed

SARA Hazard Notification:

Hazard Categories Under Title III: Acute
Section 302 Extremely Hazardous Substances: Not Listed

Section 313 Toxic Chemicals: Not Listed

CERCLA RQ: Not Listed

EINECS Number: Succinic Anhydride: 203-570-0

EC-No. 607-103-00-5

Labeling according to EC directives.

Symbol: Xi

Irritant



R-Phrases: R36/37 Irritating to eyes and respiratory system.

S-Phrases: S2 Keep out of reach of children.

> Avoid contact with the eyes. S25

Canadian Regulations:

Succinic Anhydride is listed on the DSL.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and MSDS contains all the information required by the Controlled Products Regulations.

Australian Regulations:

Succinic Anhydride is listed on the AICS.

Japanese Regulations:

ENCS Number:

2-921

Korean Regulations:

ECL Number:

KE-10664

Philippines Regulations:

Succinic Anhydride is listed on the PICCS.

Swiss Regulations:

Listed on the Giftliste 1.

SWISS Number:

G-2161

SECTION 16 – OTHER INFORMATION

PPE Codes (NPCA-HMIS)

G - Glasses, Gloves, Vapor Respirator A - Glasses

H - Goggles, Gloves, Apron, Vapor Respirator B - Glasses, Gloves I - Glasses, Gloves, Dust/Vapor Respirator

C - Glasses, Gloves, Apron J – Goggles, Gloves, Apron, Dust/Vapor Respirator

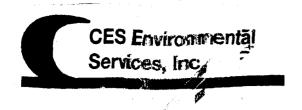
D - Faceshield, Gloves, Apron E - Glasses, Gloves, Dustmask

K - Supplied Air, Gloves, Full Protective Suit, Boots

F – Glasses, Gloves, Apron, Dust Respirator

Disclaimer

The information contained in the Material Safety Data Sheet is based on technical data that Dixie Chemical believes to be reliable and is provided to our customers at no cost. It is intended for use by persons having technical skill and at their own discretion and risk. Dixie Chemical will assume no fiability in connection with any uses of this information and no warranties, expressed or implied, are made with regards to this information since conditions of use are outside Dixie Chemical control.



Waste Pre-Acceptance/Approval Letter

Date 12/21/2006

Deag Darrell Clark

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1974

Generator: Septon Company of America

Address: 11414 Choate Road

Pasadena, TX 77507

Waste Information

Name of Waste: TPH contaminated gravel and soil

TCEQ Waste Code #: 00283011

Container Type:

Detailed Description of Process Generating Waste:

Clean-up of oil spills from forklift type equipment - based on process knowledge of the equipment and the spill material, generator does not anticipate that hazardous constituten exist.

Color: brown soil/white rock Odor: oil like pH: neutral

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approxal and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.





#1974

4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Gene			
Company:	Septon Company of America		
Address:	11414 Choate Road		
City, State, Zip:	Pasadena, TX. 77507		
Contact:	Darrell Clark	Title:	EHS Manager
Phone No:	281-909-5881	_ Fax No:	281-909-5871
24/hr Phone:	CES-713-676-1460	_	
U.S. EPA I.D. No:	TXR000043943		
State I.D.	86840	SIC Code:	2821
SECTION 2: Billin	g Information – 🔀 Same as Above		
Company:			
Address:			
City, State, Zip:			
Contact:	Title:		
Phone No:	Fax No:		
SECTION 3: Gener	ral Description of the Waste		
Detailed Description	H Contaminated Gravel and Soil of Process Generating Waste: Clean-up of oil ipment and the spill material, generator does not		
Physical State:	☐ Liquid ☐ Sludge ☐ ☑ Solid ☐ Filter Cake ☐	Powder Combination	
Color: Brown soil/w	hite rock Odor: oil like	,·	
Specific Gravity (wa	nter=1): 1.3 Density: 10 lbs/gal		
Layers:	☐ Single-phase ☐ Multi-phase	•	
Container Type: Container Size:	Drum Tote	Truck	Other (explain)
Frequency:	☐ Weekly ☐ Monthly ☐	Quarterly	
Number of Units (co	ntainers): 1-2 Other:		
Texas State Waste C			
Proper U.S. DOT Sh	ipping Name: Non-RCRA, Non-DO	T Regulated Ma	terial
Class: NA	UN/NA: NA	PG: NA	RQ: NA
Flash Point	pH Reactive Sulfides	Reactive Cy	vanides Solids
>140	neutral Omg/l	0mg/l	100%
Oil&Grease	TOC Zinc	Соррег	Nickei
>1500mg/l	>1500mg/l Omg/l	Qmg/l	Qmg/l

SECTION 4: Physical and Chemical Data

COM The waste con	Concentration Ranges are acceptable	Units or %		
Soil and Rocks		90-100	%	
Hydraulic oil and motor oil			0-10	%
PPE			0-1	%
				1

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. Level D

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. none

SECTION 7: Incompatibilities

Please list all incompatibilities (if any): oxidizers

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals:	X
TCLP Volatiles:	X
TCLP Semi-Volatiles:	<u>X</u>
Reactivity:	X
Corrosivity:	<u>X</u>
Ignitability:	<u>X</u>

SECTION 9: Generator's Certification

The information contained herein is based on \boxtimes generator knowledge and/or \square analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Authorized Signature: Law CM	Date: 12/20/06
Printed Name/Title: Darrell Clark Environmental Manager	
CES USE ONLY (DO NOT WRITE IN THE SPACE) Compliance Officer: Polymer Alland	Additional Information:
Date: 12-10-06 Approved Rejected	
Annroyal Numbers 1974	en en en en en en en en en en en en en e

SI	CCTION 10: Waste Receipt Classification Under 40 CFR	437		
Is	this material a wastewater or wastewater sludge? YES	⊠ NO		
If	'Yes', complete this section.			
PI	LEASE CHECK THE APPROPRIATE BOX. IF NO APPR	OPRIATE CA	TEGORY, GO	O TO THE NEX
Meta	uls Subcategory: Subpart A		•	
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from el	ectroplating or	phosphating (perations
	Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equ			
<u>Oils</u>	Subcategory: Subpart B			
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum source Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes	rs		
<u>Urga</u>	nics Subcategory: Subport C			
	Landfill leachate Contaminated groundwater clean-up from non-petroleum so Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation	nirces		
	Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources			

(1)	If the waste contains oil and grea	se at or in excess of 100 mg/L,	the waste should be classified in	the oils subcategory.
	And the second of the second o			
(2)	Yesha was san a matrice and and a san a	- 1 - 4 - 400 - 7	5.7 17 44 45 1	

If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

Cadmium: 0.2 mg/L Chromium: 8.9 mg/L Copper: 4.9 mg/L Nickel: 37.5 mg/L

(3)	If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, of	or
	nickel above any of the values listed above, the waste should be classified in the organics subcategory.	

		Metals	Subcategory
--	--	--------	-------------

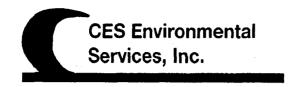
	Oils	Subcategory	
--	------	-------------	--

	 Organics	Subcategory
_	~- -	

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

50PUS Product 1975 Prof # 1975



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/28/2006

Dear Rick Griffin/Benny/Arthur

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1975

Generator: SOPUS Products (Shell Lub. Plant)

Address: 780 Clinton Drive

Galenda Park, TX 77547

Waste Information

Name of Waste: Stormwater treatment system sludge

TCEQ Waste Code #: 00076091

Container Type:

vac box

Detailed Description of Process Generating Waste:

The removal of sludge from stormwater treatment system.

Color: grey

Odor: slight oil

pH: 5-8

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

1975

CES Environmental Services, Inc.

4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021

Fax: (713) 676-1676

12

http://www.cesenvironmental.com TCEQ Industrial Solid Waste Permit No: 30948

U.S. EPA ID No: TXD008950461

ISWR No: 30900

							_
SECTION 1: Gene	rator Information						
Company:	SOPUS Products						
Address:	780 Clinton Driv	•					
City, State, Zip:	Galena Park, TX	77547					
Contact:	Brenda Clark			Title:	Regional	Environmental Engineer	_
Phone No:	713-546-6923			Fax No:	713-546-		
24/hr Phone:	CES-713-676-14	60			710010	0303	
U.S. EPA I.D. No:	TXD150364289			•			
State I.D.	39781			SIC Code:	2992		
4 0,				. 5.0 0000.			
SECTION 2: Billin	g Information -	Same as Above					
Company:	Philip Services						
Address:	316 Georgia Ave						
City, State, Zip:	Deer Park, TX 775	36					
Contact:	Jessie Gonzalez		itle:	Project Mana	per		
Phone No:	281-476-0291		ax No:	1.0,000	8		
-	201 170 0251						
SECTION 3: Gener	ral Decemination of th	o Wasta				•	
SECTION 3: Gene	rai Description of th	ie wazie					
Name of Waste: Sto	orm Water Trantmen	Cuctom Chidao					
Detailed Description			moval of s	dudge from sto	rm water tr	eatment system	
Detailed Description	I of I toccob defici a	Land Waste. The to		inago nomo	110.05		
Physical State:	∠ Liquid		Г	Powder			
1 Mysicai Baate.	☐ Solid	☐ Filter Cake		Combinatio			
	. □ Sotto	Filter Cake	-	J Comomatio	111		
Q 1		Odan Clicht eil					
Color: Grey		Odor: Slight oil					
		Th1: A Th. (_ ,				
Specific Gravity (wa	ater=1): <u>1.0-1.2</u>	Density: 9 lbs/g	gal				
Layers:	Single-phase	🛛 Multi-	phase	*			
		_			_		
Container Type:	Drum	□ Tote		Truck	\boxtimes	Other (explain)	
Container Size:						Vacuum Box	
						· -	
		· 🗆	Ë	0	1521	W. Andrew	
Frequency:	─ Weekly	Monthly		Quarterly	\boxtimes	Yearly	
Number of Units (co	ntainers): 1	Other:					
Texas State Waste (Code No: 🗾 0	0076091	1				
Proper U.S. DOT SI		Non-PCRA	Non-DO	T Regulated M	aterial		
Proper U.S. DOI SI	ribbing Manie:	NON-RCRA	, 14011-20	A ACGUIACO IVI			
Class: NA	UN/	VA: NA		PG: NA	4.	RQ: NA	
			_				
Flash Point	pН	Reactive Sulfides	;	Reactive C	yanides	Solids	
>150	5-8	4.65mg/l		Omg/l		10%	
Oil&Grease	TOC	Zinc		Copper		ickel	
>1500mg/l	>1500mg/l	<u>0</u> mg/1		Qmg/l	01	ng/l	

SECTION 4: Physical and Chemical Data

RONTRON FROM SHOURS	<u> </u>	Unit	
The waste consists of the following materials	Ranges are acceptable	or %	
Water	80-95	9%	
Oil	1-3	%	
Dirt	5-15	%	

SECTION	5: Safety	<u>Related</u> Data

If the handling of this waste requires the use of special protective equipment, please explain. Level D

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. **Ananlysis**

SECTION 7: Incompatibilities

TCLP Metals: TCLP Volatiles:

Please list all incompatibilities (if any): none

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Semi-Volatiles:	\mathbf{X}
Reactivity:	
Corrosivity:	
Ignitability:	
SECTION 9: Generato	r's Certification
attached description is o	the discretion is based on \(\subseteq \) generator knowledge and/or \(\subseteq \) analytical data. I hereby certify that the above and omplete and accurate to the best of my knowledge and ability to determine that no deliberate or willful a properties exist and that all known or suspected hazards have been disclosed. I certify that the materials

Date: 12/27/06 Authorized Signature:

Printed Name/Title: Brenda L. Clark / Regional Environmental Engineer

tested are representative of all materials described by this document.

The same and the same of the s	
CES USE ONLY (DO NOT WRITE IN THIS SPACE)	
Compliance Officer: Falcher Chand	Additional Information:
Date: 12-28-06 Approved Rejected	OSL
Approval Number: # 1975	

	SECTION 10: Waste Receipt Classification Under 40 CFR 437
	Is this material a wastewater or wastewater sludge? YES NO
	If 'Yes', complete this section.
	PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.
M	letals Subcategory: Subpart A
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment
<u>o</u>	ils Subcategory: Subpart B
	Wastewater from oil bearing paint washes
<u>O</u> 2	ganics Subcategory: Subpart C
	Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Westewater from adhesives and of enovies formulation
	Wastewater from adhesives and/of epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources

NO.	۸۸	86-	—р	5
IN C.	1111	(11)		- 1

٨	11	27	2006	4:47PM
u	EU.	//.	7000	4:4/(00

(1) If	the waste contains oil and	grease at or in excess	of 100 mg/L, th	he waste should be	classified in the	oils subcategory.
--------	----------------------------	------------------------	-----------------	--------------------	-------------------	-------------------

(2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

Cadmium: 0.2 mg/L Chromium: 8.9 mg/L Copper: 4.9 mg/L Nickel: 37.5 mg/L

(3)	If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or
	nickel above any of the values listed above, the waste should be classified in the organics subcategory.

Oils Subcategory

Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



fax

Shell Lubricants
HSSE Department

Houston, TX 77002 Tel (713) 546-6923

Fax (713) 546-8505 Email brenda.l.clark@shell.com

Pennzoil Place

700 Milam

TO

Gary Brauckman

FAX NUMBER:

713-748-8965

713-676-1676

FROM

Brenda Clark

DATE

December 27, 2006

PAGES :

5 (including cover page)

SUBJECT

Profile for Sludge from Stormwater Basin at Shell Galena Park facility

Gary,

Hi, attached is an updated and signed profile for the sludge removed from the storm water treatment system at our facility in Galena Park, TX. Please let me know if you have any questions or need me to email you the updated profile. Thanks!

Brenda

The material in this fax may be confidential, privileged and/or protected by copyright and should not be used, copied or disclosed without permission. If it has been sent to you in error, please contact us immediately.

Mercury Environmental Services, Inc.

69/3 HWY 225, Deer Park, TX 77536 Phone: (281)-476-4534 Fax: (281)-476-4406

CES Environmental Services

4904 Griggs Rd

Houston, TX 77021

Attn: Gary Brauckman

- CERTIFICATE OF RESULTS -

MES Lab#:

6120071

Client Sample ID:

Storm Drain Sludge

Extended ID:

PSC Shell Gate Houston

Sample Collect Date: 12/1/2006 @ 10:00:00 AM

Sample Receipt Date: 12/6/2006 @ 10:20:00 AM

Sample Type:

Phone: (713) 676-1460

7136761676

Grab

Test Group / Method

Reactivity, Recoverable Hydrog	gen Cyanide				Analyst: ASB
Method: 7.3.3.2	MDL		Result	Units	Date / Time
Hydrogen Cyanide	0.25		< 0.25	mg/kg	12/8/2006 / 2:38 PM
Reactivity, Recoverable Hydrog	jen Sulfide				Analyst: ASB
Method: 7.3.4.2	MDL		Result	Units	Date / Time
Hydrogen Sulfide	0.25		4.65	mg/kg	12/8/2006 / 10:38 AM
CORROSIVITY: pH					Analyst: CL
Method: SW-846 9045	MDL		Result	Units	Date / Time
рН			6.95		12/7/2006 / 9:44 AM
IGNITABILITY					Analyst; DB
Method: SW-846 1010	MDL	RL	Result	Units	Date / Time
Flashpoint		150	>150	deg F	12/6/2006 / 11:00 AM
TCLP Metals (8)					Analyst: HDGIL
Method: SW-846 6010B	MDL	RL	Result	Units	Date / Time
Arsenic	0.014	5	< 0.014	mg/L	12/12/2006 / 7:30 PM
Barium	0,0005	100	0.0948	mg/L	12/12/2006 / 7:30 PM
Cadmium	0,002	1	< 0.002	mg/L	12/12/2006 / 7:30 PM
Chromium	0.002	5	< 0.002	mg/L	12/12/2006 / 7:30 PM
Lead	0.005	5	< 0.005	mg/L	12/12/2006 / 7:30 PM
Selenium	0.024	1	< 0.024	mg/L	12/12/2006 / 7:30 PM
Silver	- 0.002	5	< 0.002	mg/L	12/12/2006 / 7:30 PM
TCLP Mercury					Analyst: TRAHM
Method: SW-846 7470A	MDL	RL_	Result	Units	Date / Time
Mercury	0.0002	0.2	< 0.0002	mg/L	12/8/2006 / 9:56 PM

Report Date: 13-Dec-06

Page 1 of 2

- CERTIFICATE OF RESULTS -

MES Lab#:

6120071

Sample Receipt Date: 12/6/2006 @ 10:20:00 AM

Client Sample ID:

Storm Drain Sludge

Extended ID:

PSC Shell Gate Houston

Sample Collect Date: 12/1/2006 @ 10:00:00 AM

Grab Sample Type:

Total Organic Halogens Method: SW-846 9020	MDL	Result	Units	Analyst: ASB Date / Time
Total Organic Halogens		214	mg/kg	12/6/2006 / 2:17 PM
BTEX Method: SW-846 8021B	MDL	Result	Units	Analyst: TFR Date / Time
Benzene	0.5	< 0.5	mg/kg	12/7/2006 / 11:30 PM
Toluene	0.5	< 0.5	mg/kg	12/7/2006 / 11:30 PM
Ethyl benzene	0.5	< 0.5	mg/kg	12/7/2006 / 11:30 PM
M+P-Xylene	0.5	< 0.5	mg/kg	12/7/2006 / 11:30 PM
o-Xylene	0.5	< 0.5	mg/kg	12/7/2006 / 11:30 PM

Flags: H: Exceeds "High Limit" L: Below "Low Limit" RL=regulatory limit

Holland D. Gilmore, Laboratory Director

Wednesday, December 13, 2006

Date

Report Date: 13-Dec-06

Page 2 of 2

6120071

MERCURY ENVIRONMENTAL SERVICES QA/QC REPORT

ANALYTE	MB mg/L	LCS %REC	LCSD %REC	RPD	CCB mg/L	CCV %REC	LOW CHECK STD	ICS %REC
Arsenic	< 0.005	100.3	91.9	8.72	< 0.005	98.3	106.0	90.4
Barium	< 0.002	101.0	97.6	3.48	< 0.002	92.6	92.4	86.1
Cadmium	< 0.001	95.3	91.9	3.58	< 0.001	88.1	91.6	83.4
Chromium	< 0.001	106.5	107.8	1.21	< 0.001	92.9	96.4	90.7
Lead	< 0.002	97.4	98.3	0.95	< 0.002	93.0	93.9	82.3
Mercury	< 0.0002	101.0	97.5	3.53	< 0.0002	102.0	100.0	
Selenium	< 0.024	104.0	93.5	10.69	< 0.024	98.3	97.8	94.1
Silver	< 0.001	101.4	97.8	3.61	< 0.001	97.2	96.0	90.6
ANALYTE	STD							
Flashpoint	82°F							
					-			
ANALYTE	BUFFER 7.0	ORIG	DUP					
рН	7.0	6.95	7.05					
ANALYTE	· · · · · · · · · · · · · · · · · · ·	ORIG mg/kg	DUP mg/kg	RPD				
Reactivity as I	Hydrogen Sulfide	4.65	4.68	0.64			-	-
	- -							
ANALYTE		ORIG mg/kg	DUP mg/kg	RPD	STD %REC			
Reactivity as I	lydrogen Cyanide	< 0.25	< 0.25	0.00	103			-

ANALYTES	METHOD 8021B	MB mg/L	MS %REC	MSD %REC	RPD	CCV %REC	
Benzene		< 0.005	87.6	90.3	3.04	107.6	
Toluene		< 0.005	78.6	84.1	6.76	105.2	
Ethylbenzene		< 0.005	95.4	100.6	5.31	103.6	
m+p Xylene		< 0.005	87,6	92.6	5.55	101.B	
o-Xylene		< 0.005	90.8	95.8	5.36	101.4	

- Mercury Environmental Services, Inc.

6120071 Page 2

QA/QC REPORT CONTINUED

SURROGATE SPIKE RECOVERY FOR BTEX % REC 4-Bromofluorobenzene 91.4

ANALYTE	MB mg/L	ORIG mg/L	DUP mg/L	RPD	STD %REC
Fluoride	< 0.01	0.00	0.00	0.00	103
Chloride	< 0.02	2.80	2.67	4.76	97.9
Bromide	< 0.01	0.00	0.00	0,00	92.6

Standards Utilized:

BTEX: 5-point calibration utilizing working standards derived from neat solution of benzene, toluene, ethylbenzene, m-xylene, p-xylene and o-xylene.

Key to QA Abbreviations

MS=Matrix Spike MSD=Matrix Spike Duplicate RPD=Relative Percent Deviation MB=Method Blank LCS=Laboratory Control Standard CCV=Continuing Calibration Verification CCB=Continuing Calibration Blank %Rec=Percent Recovery

Holland D. Gilmore / Laboratory Director

December 13, 2006

EPAHO105002086

COMPANY NAME: (BILL TO:)	Environ	neute	/		_	ME	ES	•	- CHAII	N OF	CUST	YUUY	1-800-771-4MES (281) 476-4534
COMPANY ADDRESS:					_	1ercu	ry Er	nviron • Deer l	menta	l Ser	vices	3	Fax (281)-476-4406
CITY	STA	ATE	ZIP .		_ 6							,	
CONTACT PERSON'S NAME: Gary 13 CONTACT PERSON'S PHONE: 213-41	rautoma					FA	RAMET	ERS FOR	ANALYS	is	 /	$^{\prime}$ A	REMARKS
CONTACT PERSONS NAME:	7. F73 7				- 4				1 /	' /	/	£ /	TURNAROUND TIME
CONTACT PERSON'S PHONE: 15371	1-31/1	FAX #:			- 7	1 0/		/	/ /		/ ¿	<u> </u>	3 04g
PROJECT ADDRESS: YOUR PROJECT NO.: YOUR PO. A. YOUR PO. A. YOUR PO. A.	DS	YOUR PR	OJECT NAM	E:	\Box / a	$\forall ackslash eta$	J.	/	' /		NUMBER OF COME.	/ 8	DETECTIONALIMITS
PROJECT ADDRESS:	- 1750	- 11011	C40		- / ◊	41	Y (V	155/			0	12/2	SPECIAL LIMITS REQUIRED Yes No
Houste	_				47/	10%	/ピ/		/		/ NA	PRESERVATION	Please circls one, if Yes,
YOUR SAMPLE DESCRIPTION	GRAB/COMF.	DAYE	TIME	MATRIX	7/	13					ž	ą.	piesse describe below or include separata
Storm Drain Sludge	6	12-1-06	10:00	Study	e		-	-	į		(sheet detailing requirements.
										2	1		
												\	-
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PERSON TAKING SAMPLE SIGNATURE (aPrint Name) 1. JESSie G-OH Zale-2		Lor	Peru		ELINOUISHE	BY:	br			TE 2-6-6	TIME	20	DEIVED BY:
	TE TIME	RECEIVED (Segruture)	BY: C	De Tolor	ELINQUISHEI Bignalure)	Jef:	<u> </u>		DA	TE	TIME		CEIVED BY:
	IPPED BY:		Į.	XOURIER Signature)				REDEIV (Springer	ED FOR ME	S BY:	. an		DATE TIME
Sample Remainder Disposal				/bx	Request	Lab To E)ispose (Of All Same	ole Remain	ders	TK.		12-6-00
Return Sample Remainder To Client Via				1			.,						12.1.16

Septen Company of And 26



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/22/2006

Dear Darrell Clark

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1976

Generator: Septon Company of America

Address: 11414 Choate Road

Pasadena, TX 77507

Waste Information

Name of Waste: Nickel concentrate TCEQ Waste Code #: 00273161

Container Type:

Detailed Description of Process Generating Waste:

A solution of citric acid and water is used to remove catalyst from processed polymer. T solution is concentrated through evaporation leving solid salt material of nickel and alumina. Based on in-house analytical data and process knowledge, there are

Color: greenish blue

Odor: none

pH: 2.5

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

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4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

			ø.	4.		
SECTION 1: General			•			·
Company:	Septon Company		_			···
Address:	11414 Choate Ros					
City, State, Zip:	Pasadena, TX 77	507				
Contact:	Darrell Clark			Title:	EHS Mana	· · · · · · · · · · · · · · · · · · ·
Phone No:	281-909-5881			Fax No:	281-909-5	871
24/hr Phone:	CES-713-676-146	<u>o</u>				
U.S. EPA LD. No:	TXR000043943				,	
State I.D.	86840			SIC Code:	2821	·
SECTION 2: Billing Company: Address: City, State, Zip: Contact: Phone No:	Information – 🔀	Same as Above	Title: Fax No:			
		· · · · · · · · · · · · · · · · · · ·	•			
SECTION 3: General	al Description of th	c Waste				
			•			
	of Process General	ough evaporation	leaving a soli	d salt material	of nickel and	remove catalyst from processed lalumina. Based on in-house See ATTU (44)
•			_		***	
Physical State:	☐ Liquid	Sludge	L	Powder		
	Solid Solid	☐ Filter Ca	ke 🔲	Combination	•	
	•					
Color: greenish Blue	•	Odor: <u>none</u>		•		
	•					
Specific Gravity (wat	ter=1): <u>1.3</u>	Density: 10	lbs/gal			
Layers:	Single-phase	☐ Mui	lti-phase		•	
O	D	T - 40	[]	70		74 /
Container Type:	⊠ Drum	☐ Tote	Ĺ	Truck	<u> </u>	Other (explain)
Container Size:	<u>55 gal</u>				· -	
Frequency:	☐ Weekly	☐ Monthly	, n	Quarterly		(early
Number of Units (cor	-	Other:		C V		
Texas State Waste Co		273161	 ,			
TEXAS SIZIE WASIE CI						
Proper U.S. DOT Shi			A, Non-DOT	Regulated Mar	terial	
Class: NA	UN/N	A: NA	•	PG: NA	•	RQ: NA
						
Floub Dains		Reactive Sulfic	laa	Donati - C		T Catta
Flash Point >140	pH 2.5	Omg/l	ie.	Reactive Cy Omg/I	anioes	Solids 100%
- 170			and the second) Omy)		. A Street of the second second
			And the second s			CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTRO

Oil&Grease	TOC	Zinc	Copper	Nickel
<1500mg/l	<1500mg/l	<u>O</u> mg/l	<u>O</u> mg/l	(1-3%)mg/l

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE	Concentration	Units or %	
The waste consists of the following materials	Ranges are acceptable		
Aluminum	15-25	%	
Nickel -	1-3 -	%	
Misc. Non-Hazardous Salts	75-85	%	

SECT	ION:	5: Sa	fcty Re	lated	Data

If the handling of this waste requires the use of special protective equipment, please explain. Level D

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package.

none— MSDS- (a 14/15 t v Septon Product

SECTION 7: Incompatibilities

Please list all incompatibilities (if any): oxidizers

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals: X
TCLP Volatiles: X
TCLP Semi-Volatiles: X
Reactivity: X
Corrosivity: X
Ignitability: X

SECTION 9: Generator's Certification

The information contained herein is based on generator knowledge and/or analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Authorized Signature: January Way Date: 12/20/06

Printed Name/Title: Darrell W. Clark, Environmental Manager

CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer: Palaber Taylor	Additional Information:
Date: 12-21-06 Approved Rejected	
Approval Number: 1976	

SECTIO	N 10: Waste Receipt Classification Under 40 CFR	<u>437</u>					
Is this ma	uterial a wastewater or wastewater sludge? YES	\boxtimes	NO				
If 'Yes',	complete this section.					-	
PLEASE	CHECK THE APPROPRIATE BOX. IF NO APPR	OPRLA'	TE CATEGO	ORY, GO TO	THE NEXT	PAGE.	
Metals Sub	category: Subpart A				,		
Mcta Chro Air p Spen Incin Wast Cyan Wast Clear Vibra	t electroplating baths and/or sludges of finishing rinse water and sludges mate wastes collution control blow down water and sludges at anodizing solutions terration wastewaters te liquid mercury tide-containing wastes greater than 136 mg/l te acids and bases with or without metals ring, rinsing, and surface preparation solutions from electory deburring wastewater line and acid solutions used to clean metal parts or equi		ting or phosp	hating opera	tions		·
Oils Subcat	eggry: Subpart B						
Lubr Cook Conta Used Oil s Bilge Rinse Intere Off-s Unde Tank Non-	vater emulsions or mixtures icants	S					
	ubcategory: Subpart C	•					
Conta	fill leachate aminated groundwater clean-up from non-petroleum sor ent-bearing wastes pecification organic product bottoms oduct waste glycol ewater from paint washes ewater from adhesives and/or epoxies formulation ewater from organic chemical product operations clean-out from organic, non-petroleum sources	urces					
• •		·	en en en en en en en en en en en en en e	and the second second			
· · · · · · · · · · · · · · · · · · ·				A Charles and the second of th			

(1)	If the	waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess values listed below, the waste should be classified in the metals subcategory.
j	Chron Coppe	ium: 0.2 mg/L nium: 8.9 mg/L er: 4.9 mg/L l: 37.5 mg/L
(3)		waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or above any of the values listed above, the waste should be classified in the organics subcategory.
•		Metals Subcategory
		Oils Subcategory
		Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis,



OMG AMERICAS, INC. 2301 SCRANTON ROAD CLEVELAND, OHIO 44113

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 10% NICKEL HEX-CEM-CYCLOHEXANE

PRODUCT CODE: 00527

MANUFACTURING LOCATION:

OMG AMERICAS, INC. TWO MILE RUN ROAD

VENANGO COUNTY, FRANKLIN, PA 16323

DATE REVISED: 03/25/2002 **DATE PRINTED:** 03/25/2002

IN CASE OF EMERGENCY CONTACT:

8:00 a.m. to 5:00 p.m. (EST): 440-899-2950

After 5:00 p.m.(EST): 814-432-2125

CHEMICAL FAMILY/USE: Metal Carboxylate

CHEMICAL FORMULA: NA

HMIS: HEALTH:

2*

FLAMMABILITY: REACTIVITY:

3

PERSONAL PROTECTION:

В

^{*}Chronic health hazard

2.	COMP	OSITI	ON/INFOR	MATION	ON INGRI	EDIENTS
	_					~~~~

Component/CAS	Percent	ACGIH TLV:	ACGIH S Term Exp	hort OSHA PEL:	OSHA Short Term Exposur	Units that the eTWAs and
			Limit (ST value:	EL)	Limit (STEL) value:	STELs for ACGIH and OSHA are in:
Nickel 2-Ethylhexanoate 7580-31-6	65	0.2**	NE	1	NE	mg/m3
Cyclohexane 110-82-7	33	300	NE	300	NE	ppm
2-Ethylhexanoic Acid 149-57-5	<3	NE .	NE	NE	NE	

^{**}For Nickel, Insoluble compounds, as Ni

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Danger! Extremely flammable. Nickel dust or fume can cause sensitization dermatitis and may cause cancer of the paranasal sinuses and the lungs. Nickel fumes are respiratory irritants and may cause pneumonitis. Skin contact may cause an allergic skin rash. Aspiration hazard if swallowed. Can enter lungs and cause damage. Keep away from heat, sparks, flame or other sources of ignition (e.g. static electricity, pilot lights or mechanical/electrical equipment). Do not taste or swallow. First Aid: Danger- Aspiration hazard. If swallowed do not induce vomiting. Call a physician. In case of contact, flush eyes or skin with plenty of water.

EYE CONTACT:

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

OMG Americas, Inc.

10% NICKEL HEX-CEM-CYCLOHEXANE 00527

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SKIN CONTACT:

May cause sensitization by skin contact. May cause mild skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying and cracking, and skin burns.

Aspiration hazard. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

INHALATION:

Prolonged inhalation of nickel dust, or metal dust, fume or mist containing nickel may cause serious respiratory illness. There are references in the literature associating nickel with interstitial fibrosis, a disease which can be fatal. Inhalation may cause an irritation ofrespiratory organs of sensitive persons resulting in obstruction of airways with shortness of breath. May cause respiratory irritation.

4. FIRST AID MEASURES

EYES:

If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist,

SKIN:

Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops and persists, seek medical attention.

If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious, place on the left side with the head down. If possible, do not leave victim unattended. Seek medical attention.

MEDICAL CONDITIONS AGGRAVATED:

Asthma-like conditions.

NOTE TO PHYSICIAN:

None known.

5. FIRE FIGHTING MEASURES

FLASH POINT (° F)

OSHA FLAMMABILITY CLASSIFICATION:

Flammable Liquid-Class IB

EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, halon, foam or water spray is recommended. Water may be ineffective.

SPECIAL FIREFIGHTING PROCEDURES:

Wear appropriate protective equipment including respiratory protection as conditions warrant. Stop spill/release if it can be done without risk. Move undamaged containers from fire area if it can be done without risk. Water spray may be useful in minimizing or dispersing vapors and cooling equipment exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes.

EXPLOSION LIMITS IN AIR - LOWER (%)1.3 for cyclohexane

EXPLOSION LIMITS IN AIR - UPPER (%) 8.4 for cyclohexane

AUTOIGNITION TEMP (° F)

UNUSUAL FIRE AND EXPLOSION HAZARDS

This material is extremely flammable and may be ignited by heat, sparks, flame or other sources of ignition (e.g. static electricity, pilot lights, mechanical/electrical equipment). Vapors may travel considerable distances to a source of ignition where they may ignite, flashback or explode. Vapor/air explosion hazard indoors/outdoors or in sewers. Vapors are heavier than air and may accumulate in low areas. If container is not properly cooled, it may explode in the heat of a fire.

ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

EXTREMELY FLAMMABLE. Keep all sources of ignition and hot metal surfaces away from spill/release. Stay upwind and away from spill/release. Isolate hazard area and limit entry to emergency crew. Stop spill/release if it can be done without risk. Wear

OMG Americas, Inc.

10% NICKEL HEX-CEM-CYCLOHEXANE 00527

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appropriate protective equipment including respiratory protection as conditions warrant. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material. Notify fire authorities and appropriate federal, state and local agencies. Immediate cleanup of any spill is recommended.

7. HANDLING AND STORAGE

HANDLING:

KEEP FROM FREEZING. Bond and ground all equipment when transferring from one vessel to another. The use of explosion-proof equipment is recommended and may be required (see appropriate fire codes). Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276. The use of respiratory protection is advised when concentrations exceed any established exposure limits. Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practice. "Empty" product containers retain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks or other sources or ignition; they may explode and cause injury or death. "Empty" drums should be completely drained and properly bunged. All other containers should be disposed of in an environmentally safe manner and in accordance with government regulations. Before working on or in tanks which contain or have contained this product, refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

STORAGE

KEEP FROM FREEZING. Keep container(s) tightly closed. Use and store this material in a cool, dry, well-ventilated area away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post "NO SMOKING OR OPEN FLAME." Store only in approved containers. Keep away from any incompatible material. Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV'(s). Explosion-proof ventilation system is acceptable.

RESPIRATORY PROTECTION EQUIPMENT:

The use of respiratory protection is advised when concentrations exceed the established exposure limits. Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and cannisters (NIOSH-approved, if available) or supplied air equipment.

PROTECTIVE GLOVES:

The use of gloves impermeable to the specific material handled is advised to prevent skin contact and possible irritation.

EYE AND FACE PROTECTION:

Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.

OTHER PROTECTIVE EQUIPMENT:

It is suggested that a source of clean water be available in the work area for flushing eyes and skin. Impervious clothes should be worn as needed.

VENTILATION:

If current ventilation practices are not adequate to maintain airborne concentrations below established exposure limits, additional ventilation or exhaust system may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

177° F for cyclohexane Boiling Range/Point Vapor Pressure .77 mmHg/20° C (for cyclohexane) 2.9 for cyclohexane Vapor Density (AIR=1) Freezing Point Unknown Melting Point Unknown Physical State Liquid ColorDark Green % Volatile by Weight
%Volatile by Volume Unknown Evaporation Rate (Butyl Acetate=1) 3.4 for cyclohexane Specific Gravity @ 25°C

10% NICKEL HEX-CEM-CYCLOHEXANE 00527

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OMG Americas, Inc.

10. STABILITY AND REACTIVITY

STABILITY:

Stable under recommended conditions of storage and handling.

HAZARDOUS POLYMERIZATION:

HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:

Combustion may yield nickel oxide, carbon monoxide and/or carbon dioxide. Do not breathe smoke or fumes. Wear appropriate

protective equipment.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong oxidiizers, heat and other sources of ignition.

CONDITIONS TO AVOID:

Avoid all possible sources of ignition.

TOXICOLOGICAL INFORMATION 11.

TOXICITY DATA:

IARC has classified nickel 2-ethylhexoate as carcinogenic to humans with sufficient evidence of

carcinogenicity.

No data at this time. **ACUTE ORAL LD50:**

No data at this time.

ACUTE DERMAL LD50: ACUTE INHALATION LC50:

No data at this time.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

No data at this time

CHEMICAL FATE INFORMATION:

No data at this time.

DISPOSAL CONSIDERATIONS 13.

DISPOSAL METHOD:

This product is a RCRA hazardous waste if discarded in the produced form due to ignitibility. Empty containers must be handled with care due to material residue. Empty containers should be completely drained, properly bunged and shipped to a drum reconditioner.

14. TRANSPORT INFORMATION

DOT SHIPPING NAME:

RQ, Paint Related Materials

DOT HAZARD CLASS:

UN/NA NUMBER:

UN1263

DOT PACKING GROUP:

EXCEPTION:

Under 49 CFR 171.8, this material meets the definition of a Hazardous Substance if, in

concentration by weight, in one package, equals or exceeds the Reportable Quantity.

AIR FREIGHT TRANSPORTATION: RQ, Flammable Liquid, NOS, (contains Cyclohexane), 3, UN1993, II

OCEAN TRANSPORTATION: RQ, Flammable Liquid, NOS, (contains Cyclohexane), 3.2, UN1993, II

REPORTABLE QUANTITY:

Cyclohexane 1,000 lbs.

15. REGULATORY INFORMATION

TSCA STATUS:

All components of this product are on the US TSCA Inventory.

TSCA 12(b) EXPORT NOTIFICATION:

OMG Americas, Inc.

10% NICKEL HEX-CEM-CYCLOHEXANE 00527

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Cyclohexane (110-82-7) is a TSCA 12 (b) one-time export notification substance and requires notice only for first export or intended export to a particular country (40 CFR 707.65(a)(2)(ii)) (from TSCA Section 4).

CALIFORNIA PROPOSITION 65:

This material may contain the following chemicals which are known to the State of California to cause cancer or birth defects and are subject to the requirements of California Proposition 65:

Nickel And Certain Nickel Compounds Cancer

CLEAN AIR ACT S112 HAZARDOUS AIR POLLUTANTS:

Nickel Compounds.

SARA 302 EXTREMELY HAZARDOUS SUBSTANCES LIST:

This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substance List.

SARA (311, 312) HAZARD CLASS:

Acute health hazard. Chronic health hazard. Fire hazard.

SARA SECTION 313 TOXIC CHEMICALS:

Nickel Compounds

65%

Cyclohexane (110-82-7)

33%

AUSTRALIAN INVENTORY CHEMICAL SUBSTANCES:

All components are listed on the Australian Core Inventory of Chemical Substances (ACOIN).

CANADIAN INVENTORY:

All components are on the Domestic Substance List (DSL).

EINECS REGULATIONS:

All components are on the European Inventory of Existing Commercial Chemical Substances (EINECS).

JAPAN:

All components are listed on the Japanese Existing and New Chemical Substances (ENCS).

KOREAN CHEMICAL INVENTORY:

All components are on the Korean List of Existing Chemical Substances.

CHINESE INVENTORY:

All components are listed on the Chinese Inventory of Existing Chemical Substances.

16. OTHER INFORMATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES:

The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

17. LABEL INFORMATION

SIGNAL WORD:

DANGER!

TARGET ORGANS:

Material may cause eye and skin irritation. Breathing high concentrations of mists or vapors may cause respiratory irritation.

^^CANCER HAZARD (contains nickel 2-ethylhexoate which) can cause cancer. Risk of cancer depends on duration and level of exposure.

EYES:

If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

SKIN:

Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops and persists, seek medical attention.

INHALATION:

If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

INGESTION:

Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious, place on the left side with the head down. If possible, do not leave victim unattended.

OMG Americas, Inc.

10% NICKEL HEX-CEM-CYCLOHEXANE 00527

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Seek medical attention.

HANDLING:

KEEP FROM FREEZING. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276. The use of respiratory protection is advised when concentrations exceed any established exposure limits. Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practice. "Empty" product containers retain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks or other sources or ignition; they may explode and cause injury or death. "Empty" drums should be completely drained and properly bunged. All other containers should be disposed of in an environmentally safe manner and in accordance with government regulations. Before working on or in tanks which contain or have contained this product, refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

STORAGE:

KEEP FROM FREEZING. Keep container(s) tightly closed. Use and store this material in a cool, dry, well-ventilated area away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post "NO SMOKING OR OPEN FLAME." Store only in approved containers. Keep away from any incompatible material. Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

EXTREMELY FLAMMABLE. Keep all sources of ignition and hot metal surfaces away from spill/release. Stay upwind and away from spill/release. Isolate hazard area and limit entry to emergency crew. Stop spill/release if it can be done without risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material. Notify fire authorities and appropriate federal, state and local agencies. Immediate cleanup of any spill is recommended.

EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, halon, foam or water spray is recommended. Water may be ineffective.

OMG Americas, Inc.

10% NICKEL HEX-CEM-CYCLOHEXANE 00527

Page 6 of 6

SEPTON® 4033

Material Safety Data Sheet

Section I - Company Information

Septon Company of America.
11414 Choate Road
Pasadena Texas, 77507
Phone Number: 281-909-5800
Fax Number: 281-909-5871
Emergency Number: 281-909-5870
Date of Preparation: February 9, 2004

Section II – Component Information					
Component Name	OSHA PEL	ACGIH TLV	CAS Number	%	
SEPTON® 4033	NA	NA	Mixture	100	
Hydrogenated Styrene Isoprene/Butadiene Block Copolymer	NA	NA	132778-07-5	>99	
Antioxidant/Stabilizer	NA	NA		< 1	

Section III – Physical/Chemical Characteristics				
Boiling Point: None Specific Gravity: (H20 = 1): 0.91				
Vapor Pressure: None Vapor Density: None				
Flammability: UEL = None LEL = None	Odor: No Odor			
Solubility in Water: Negligible Appearance: White Powder				

Section IV – Fire and Explosion Hazard Data					
Flash Point: None	Auto Ignition Temperature: None				
Explosive Limits: UEL = None	LEL = None				
Firefighting Procedures:					
Extinguishing Media – Water, D	ry Chemical, Resistant Foam, or Carbon Dioxide				
Special Firefighting Procedures:					
Firefighters should wear a positive	e pressure NIOSH approved self-breathing apparatus				
with a full faceplate when there is a possibility of exposure to smoke, fumes, or					
hazardous decomposition produc	ts				
Unusual Fire and Explosion Hazards:					
Toxic gases (carbon Monoxide)	may form when burned without sufficient oxygen				

Section V - Reactivity and Stability Data

Stability – Stable, Conditions to Avoid – NA, Incompatibility – None

<u>Hazardous Decomposition or By-Products</u> – At processing temperatures, some degree of thermal degradation will occur. Although highly dependant on temperature and environmental conditions, a variety of decomposition products may be present. These range from simple hydrocarbons (methane, propane) to toxic/irritating gases (carbon

SEPTON® 4033

monoxide, carbon dioxide etc.)

Section VI - Health Hazard Data

Carcinogenicity: No

Emergency and First Aid Procedures:

Skin Contact:

Wash the affected area under tepid water using a mild soap. If the irritation persists, arrange for transport to the nearest medical facility for examination and treatment by a physician

Inhalation:

Remove the victim from the contamination immediately to fresh air. Keep the victim warm and quiet. If any symptoms appear, arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

Eve Contact:

Gently rinse the affected eyes with clean water for at least 15 minutes. Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

Ingestion:

Rinse mouth with water. Give victim one or two glasses of water. If they are conscious, try to get the victim to vomit by having the victim touch the back of their throat with a finger. If they are unconscious, don't give anything to drink and don't make them vomit. Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

Section VII - Precautions for Safe Handling and Use

Recommended Handling and Storage:

Septon polymer may accumulate static charge during transport, handing and processing. Static charge can be a potential fire hazard in the presence of volatile or flammable materials or in high airborne dust conditions.

Ground all transfer, blending and dust collection equipment to prevent static sparks. Remove all ignition sources from the material handling, transfer and processing areas where dust may be present. Mechanical and local exhaust should be provided in work areas. Practice good housekeeping practices. Product spilled on walking surfaces may constitute a slipping hazard. Store in a cool, well ventilated location. Keep away from all possible sources of ignition.

Spill and Leakage:

Take up mechanically, then place in a chemical waste container. Then ventilate area.

Section VIII - Control Measures

OSHA PEL - None Established, PEL - NA, TVL/TWA - NA, ACGIH - NA.

Respiratory Protection:

SEPTON® 4033

Keep work area well ventilated to avoid inhaling excessive material. Where exposure is likely to exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based upon the form and concentration of contaminate in the air in accordance with OSHA 29 CFR, 1910.134.

Protective Equipment:

Protective Clothing:

Wear heat protective gloves and clothing if there is a potential contact with heated materials.

Eye Protection:

Safety glasses meeting ANSI Standard Z87.1 should be worn if there is a possibility of eye contact.

Work Hygiene Practices:

Practice good personal hygiene after using this material. Use good housekeeping practices.

Section IX – Transporter Information

Proper Shipping Name: NA

Un/ID Number:

Non-regulated

Hazard Class:

Not Hazardous by DOT

Labels Required:

None

Packaging Group:

None

This product is not hazardous as defined by the U.S. Occupational Safety and Health Administration (OSHA) under its Hazard Communication Standard (HCS), 29 CFR 1910.1200

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Septon Company of America bears legal responsibility.

TEST RESULTS LABORATORY

Job Number: 327461

Date: 12/20/2006

CUSTOMER: Coastal Chemical Co., LLC

PROJECT: RUSH BENZENE AND OIL

ATTN: Mike Zeringue

Customer Sample ID: #3 DISCHARGE WATER Date Sampled....: 12/17/2006
Time Sampled....: 18:00
Sample Matrix...: Water

Laboratory Sample ID: 327461-1
Date Received....: 12/19/2006
Time Received....: 08:39

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECE
EPA 1664A	Oil and Grease, Water	ND	 	5.5	mg/L	12/19/06	klv
EPA 120.1	Resistivity, Water	2.3380	1	1.0000	* umhos/cm	12/19/06	sur
EPA 120.1	Specific Conductivity @ 25 degrees C, Water	l 429		1.0	* umhos/cm	12/19/06	sur
EPA 160.2	Solids, Total Suspended (TSS), Water	22.0	1	10	mg/L	12/19/06	enc
HACH 8000	Chemical Oxygen Demand (COD), Water	494	1	20.0	mg/L	12/19/06	bct
SW-846 8021B	GC Volatile Organics Benzene, Water	ND		1.00	ug/L	12/19/06	cad
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^{*} In Description = Dry Wgt.

Gary Brauckman

From: Clark, Darrell [Darrell.Clark@sepca.com]

Sent: Thursday, December 21, 2006 6:51 AM

To: gbrauckman@cesenvironmental.com

Subject: RE: Profiles for nickel concentrate and TPH contaminated soil

OMG is the catalyst itself. It is not the wash water. The wash water is the water and citric acid used to remove the catalyst from the polymer after hydrogenation. I do not have a specific MSDS for the wash water as it is evaporated, condensed and sent out as waste water for biological treatment. Following is a brief process description that should help your understanding.

The SEPTON® manufacturing process consists of the following units: polymerization; hydrogenation; catalyst removal and washing; coagulation and stripping; dewatering and drying; and utilities. In the polymerization unit, styrene, isoprene and butadiene are polymerized to produce a styrene-diene block copolymer in solution. The copolymer is hydrogenated in the hydrogenation section. In the catalyst removal and washing units, the catalyst residue is removed by washing with water. The copolymer is then coagulated by stream stripping from the solution (cement). After air drying, the final product, SEPTON® is obtained in the form of a crumb rubber.

I'll call this morning.

Darrell Clark

----Original Message----

From: Gary Brauckman [mailto:gbrauckman@cesenvironmental.com]

Sent: Wednesday, December 20, 2006 3:27 PM

To: Clark, Darrell

Subject: RE: Profiles for nickel concentrate and TPH contaminated soil

Darrell:

Is the OMG MSDS the catalyst and only catalyst? Is this the wash solution etc. Give me a call when you get a chance.

Thanks

Gary

From: Clark, Darrell [mailto:Darrell.Clark@sepca.com] Sent: Wednesday, December 20, 2006 12:46 PM

To: abrauckman@cesenvironmental.com

Subject: RE: Profiles for nickel concentrate and TPH contaminated soil

Attached is a copy of each MSDS for Septon product and the Nickel Catalyst used in the process

Darrell Clark

----Original Message----

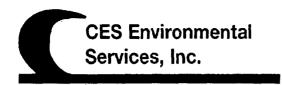
From: Gary Brauckman [mailto:gbrauckman@cesenvironmental.com]

Sent: Wednesday, December 20, 2006 10:01 AM

To: Clark, Darrell

Subject: Profiles for nickel concentrate and TPH contaminated soil

Allied Petrochemical LLC 1971 Prof ## 1977



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/28/2006

Dear Jack Kessel

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1977

Generator: Allied Petrochemical LLC

Address: 2330 FM 2917

Alvin, TX 77511

Waste Information

Name of Waste: Centrifuge sludge from process

TCEQ Waste Code #: 00045191

Container Type:

Detailed Description of Process Generating Waste:

Centrifuge of product to remove water. The sludge is too high in water to be useful.

Color: brown

Odor: mild petroleum

pH: 3-11

Physical State:

Incompatibilities: none known

Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc. DEC-27-2006 15:46

CES Environmental Svcs.

7137488664

P.04



4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA 1D No: TXD008950461 ISWR No: 30900

SECTION 1: Genera	nor information					
Company :	Allied	Detroch	Em: cal			•
Address:	2330		917			The state of the s
City, State, Zip :	Alvin	7.	×	17512		
Contact:	JADIE	الاقهجوداا		Title:		•.
Phone No :	-185- K	08-653	-5	Fax:		
24 / HR Rhone:						
U.S EPA Î.D No :				. •	. 1.	
State I.D:	1-36°	5 877	47	SIC Code	<u>NA</u>	
SECTION 2: Billing	Information	Petrod				
Company: Address:	P.O. Ba		JEWICAI		· · · · · · · · · · · · · · · · · · ·	
City, State, Zip:		swood	7.4	77549		
Contact:		<u> </u>		Title :		
Phone No:		08. PS25		Fay 1	·	
SECTION 3: General Name of Waste :	CENT	Frage Top 1	THE PROPERTY	on To	CES	water. The sludge
Physical State :	[] Liquid	🎉 SIL	ndge [Powder		
	Solid	<u> </u>	ter Cake	Combination	• .	
Color:	_	Brown	Odor	•	mild PET	
Specific, Gravity (Water=1):	1.3	Dens	ity:		lbs / gal
Layers :	Single-Pi	has 🔝 Mu	ıiti-Phase			
Container Type :	∑ Drum	☐ Tota	Truck	Other (exp	ola(n)	
Container Size :	55 9A1				_	
Number Of Units	50	••				
Texas State Wast	e Code No : _ C	200451	211		,	
Proper U.S. State	Waste Code No	: NON - TE	SCBB ND	N DOT S	<u>ranladei</u>	oneste shelpe
		1	1	PG: N	A	RO: MA
Class: MA		UN/NA : \	,			
				ides Read	tive Cyanides	Salida _
Flash Poin		рН	Reactive Sulf		stive Cyanides	901ldn 30-40 %
	t		Reactive Sulf	mg/l		

DEC-27-2006 15:46 CES Environmental Svcs.			7137488664	P.05
SECTION 4: Physical and Chemical Data				
(OCS 200, 300, 400,	40	40	50%	
Water	40	Gr.	50%	
SECTION 5: Safety Related Date				
If the handling of this waste requires the use of special protective ed	Juloment al	Nee avui		
Standard PRE	desprising his	-496 exhit		
SECTION 6: Attached Supporting Documents List all documents, notes, data, and/or analysis attached to this form	. ## thank			
MSDS	es her cot a	ID WHILE I	ibblovsi beckede:	
			-	
SECTION 7: Incompatibilities				
Please list all incompatibilities (If any):		•		
NOWE KNOWN				
SECTION 8: Generator's Knowledge Documentation				
Laboratory analysis of the hazardous waste characteristics, listed bel following generators knowledge	low, WAS NO	T PERFO	RMED based upon ti	he
TCLP Metals:				
TCLP Volatilles : U				
TCLP Semi-Volatiles : U				
Reactivity:				
Corrosivity:				
Ignitability:				
SECTION 9: Generator's Certification				
The information contained herein is based on generator knowledge above and attached description is complete and accurate to the best of deliberate or willful omissions of composition properties exist and that	of my knawle	dge and	ability to determine to	hat no

1911

CES USE ONLY (DO NOT WRITE IN THIS SPACE)

Authorized Signature:

Approval Number:

Approved

President

Rejected

Special Pricing / Analytical Info:

Recommended Treatment:

SECTI	ON 10: Waste Receipt Classification Under 40 CFR 437	
Is this	material a wastewater or wastewater sludge? YES NO	**************************************
If 'YES	S', complete this section	
PLEA	SE CHECK THE APPROPRIATE BOX: IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE	
Matal	s Subcategory: Subpart A	•
	Spent electroplating baths and/or sludges	
	Metal finishing rinse water and sludges	
	Chromate wastes	
	Air pollution control blow down water and sludges	
<u></u> 1	Spent anodizing solutions	
	Indineration wastewaters	
	Waste liquid mercury	
	Cyanide-containing wastes greater than 136 mg/l	
	Waste acids and bases with or without metals	
	Cleaning, rinsing, and surface preparation solutions from electroplating or phospha	
	Vibratory deburring wastewater	
	Alkaline and acid solutions used to clean metal parts or equipment	
011- 0	Subsection and Cubsecut D	
Olis 5	Subcategory: Subpart B Used oils	
	Oil-water emulsions or mixtures	
	Lubricants	
	Coolants	
	Contaminated groundwater clean-up from petroleum sources	•
	Used petroleum products	
	Oil spill clean-up	
	Bilge water	
	Rinse/wash waters from petroleum sources	
	Interceptor wastes	
	Off-specification fuels	
	Underground storage remediation wastes	
	Tank clean-out from petroleum or oily sources	
	Non-contact used glycols	
	Aqueous and oil mixtures from parts cleaning operations	
	Wastewater from oil bearing paint washes	
Organ	nics Subcategory Subpart C	
	Landfill leachate	
	Contaminated groundwater clean-up from non-petroleum sources	, .
	Solvent-bering wastes	
	Off-specification organic product	
	Still bottoms	٠٠٠
	Byproduct waste glycol	-
	Wastewater from paint washes -	
	Wastewater from adhesive and/or epoxies formulation	
	Wastewater from organic chemical product operations	
	Tank clean-out from organic, non-petroleum sources	

GULF WEST LANDFILL

PERMIT #: 39039

2601 South Jenkins Road (PO Box 200

Anahuac, TX 77514-

TEL: 409-267-6666

FAX: (409) 267-6668



Approval Date:

7/8/2003

o portugação de la constitución en entre do la lituração de la compansión de la compansión de la compansión de

Generator:

TEXAS OIL AND GATHERING

Generator ID 41865

Generator Site Address:

2330 FM 2917

Mailing Address:

P.O. BOX 1722

ALVIN, TX 77512

MATT BOWMAN

ALVIN, TX 77512

Generator Contact/Phone: Technical Contact/Phone:

SAME

(713) 826-1329

Name of Waste:

NON-RCRA CENTRIFUGE SLUDGE

TNRCC Waste Code:

0004-519-1

EPA Waste Classification: Non-Hazardous Special Waste

Total Annual Volume:

50 DRUMS

Disposal Sile Authorization:

L55 Y316064

SPECIAL WASTE CELL

Expiration Date:

7/7/2006

Special Conditions: This approval is granted subject to the enforcement of the conditions listed below MUST SOLIDIFY

A Non-Hazardous Waste Manifest must accompany all loads to the landfill. Loads of this waste stream may be randomly inspected upon receipt at the landfill to conform with the Waste Profile Sheet.

THIS MATERIAL MUST BE SOLIDIFIED IMMEDIATELY UPON RECIEPT AT THE LANDFILL FACILITY. ONCE THE MATERIAL IS ABLE TO PASS A PAINT FILTER TEST; IT IS ACCEPTABLE FOR LANDFILL DISPOSAL.

The approved disposal volume for this material is listed above. If the disposal volume is exceeded, landfill personnel must notify the AWI Environmental Compliance Department immediately.

COPIES:

Special Waste Environmental Compliance File; Generator

GULF WEST LANDFILL

George Elrod, SVV Analyst

CES Environmental Services, Inc

4904 Griggs Rd. Houston, TX 77021 Phone: (713) 676-1460 Fax: (713) 676-1676

BFI/Allied Waste Industries 5757A Oates Rd. Houston, TX 77078

July 7, 2003

To whom it may concern,

This letter has been drafted regarding a profile we submitted for a waste stream for Non-RCRA centrifuge sludge for Texas Oil and Gathering. You requested we run an analysis for TCLP Metals, BTEX, and RCI for this waste. We would like to state that this waste contains only OCS 200, 300, 400 (MSDS attached) and water. This is simply product diluted with water. There are no other constituents that would mandate we run the analysis you requested.

Should you have any further questions, please contact me at (713) 826-1329. Thanks for your assistance.

Sincerely,

Matt Bowman
Agent for Generator

JUL-07-2003 12:50 FROM: CES ENVIRONMENTAL

7136761676

T0:713 675 8803

P. 010/015 Page 1 of 2

GENERATOR WASTE PROFILE SHEET

ALLIED WASTE	•			
			Wast	e Profile #
Requested Disposal Facility:	Gulf West Landfill		L55-Y3	16064
	an Allied Waste Company		AWI Sales Rep. To	erri Band 509
I. Generator Information	n		Date: 7-7-6	3
Generator Name: Texas O	11 and Gatherine			
Generator Site Address: 233	10 FM 2917			
City: Alvin	County: Brezestin	State:	TX	Zip: 77512
State ID/Reg No: 41865	State ApprovatWaste Code:	0045	191 (Mapplicable)	SIC Code: NA
Generator Mailing Address (if did	ferent): PD Box 1722			
City: A)ula	County Brezonia	State:	TX	Zip: 77512
Generator Contact Name: A				
Phone Number: (713) 82	-6-1329	Fax N	umber: (773)6	76-1676
lla. Transporter Informatio				
Transporter Name: CES E	inutanmental sucr.	Conta	ct Name: Dan i	Soumen
Transporter Address: 490 Y	Griggs Rd.			
City: Howston	County: Herris	State:	TX	Zip: 77021
Phone Number (713) 676-1460	Fax Number (717) 676-1676	State	Transportation Number	er: 30500
llb, Billing Information				
BILL TO: CET Environment	al Services Fuci	Conta	cl Name: Jugal te	Thomas
Billing Address: 4904 G	iggs RS.			
City: Houston	State: TX	Zip:	77021 Phone	Number: (717) 676-1460
III. Waste Stream Informa				
Name of Waste: ~on - 20	CRA Centrifuge Sludg	e for	un Process	
Process Generating Waste: C.	entrifuging of mod	14	to remove	water
This sludge is	too high in w	ater	yo be use	41.
		× 🗆	POLLUTION CONTR	OL WASTE
Physical State: SOL	D SEMI-SOLID POWDE		LIQUID OTHER	
Method of Shipment: BULI	K ADRUM BAGGED	OTHER	:	
_	CUBIC YARDS: TONS	S;	GALLONS	MOTHER: 50 down
	DAILY WEEKLY MO			
Special Handling Instructions:				V

Representative Sample Certification

is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules? Sample Date:

Type of Sample: COMPOSITE SAMPLE

Laboratory:

Sample ID Numbers:

Sampler's Employer.

Sampler's Name (printed):

GRAB SAMPLE

Signature:

IV.

JUL-07-2003 12:51 FROM:CES ENVIRONMENTAL

7136761676

TO:713 675 8803

P. 011/01



GENERATOR WASTE PROFILE SHEET (continued)

Page 2 of 2

Waste Profile #

	L55-Y	316064
V. Physical Characteristics of Waste	7	
Characteristic Components	% by Weight (range)
The state of the s	40 %	- 50%
2. water	40% -	- 50%
3.		
4.		
5.		
Color Odor (describe) Free Liquids . 26 Solids . pH:	Flash	Point Phenol
YES or NO	-16	_
dors mill approleum Consentso 70% SO - 90 -	-11 7161	
Anach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Reg	uired Parameters	Provided for this Profile
Does this waste or generating process contain regulated concentrations of the following Pesticides and	d/or Herbicides:	
Chlordane, Endrin, Heptachlor (and it epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,	5-TP Silvex as	☐ Yes or X No
defined in 40 CFR 261,33?	C. 15 de ee	
Does this waste or generating process cause it to exceed OSHA exposure limits from high levels of high representation of the Hydrogen Cyanide as defined in 40 CFR 261.23?	lagragen autime or	☐ Yes or X(No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in	40 CFR Part 761?	Yes or No
Does this waste contain regulated concentrations of listed hazardous wastes defined in 40 CFR 261.3		☐ Yes or X No
including RCRA F-Listed Solvents?	·	Tes dr ALNO
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCC)	D), or any other	☐ Yes or No
diaxin as defined in 40 CFR 261.31?	···········	
Is this a regulated Toxic Material as defined by Federal and/or State regulations?		Yes or No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?		Yes or No
Is this a regulated Medical or Infectious Wasse as defined by Federal and/or State regulations?		Yes or No
is this waste generated at a Federal Superfund Clean Up Site?		Yes or No
VI. Generator Certification		
description of the waste material being offered for disposal and all known or suspected haz Results/Material Safety Data Sheets submitted are truthful and complete and are representa utilizing this profile, neither myself nor any other employee of the company will deliver for any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other accepting by law. I shall immediately give written notice of any change or condition. Our company hereby agrees to fully indemnify this disposal facility against any damages re inaccurate or untrue. I further certify that the company has not altered the form or content of waste Industries, Inc. The undersigned individual warrants that he/she is authorized to significant formula and the safety of	tive of the waste. disposal or attem her waste material pertaining to the v esulting from this of this profile shee in this document of Company f	I further certify that by apt to deliver for disposal this facility is prohibited waste not provided herein. certification being at as provided by Allied in behalf of the Generator.
Tr Was Ambalanta	7-7-93	·
Authorized Representative Signature	Date	
VII. Allied Waste Decision		, .
Approved	Expiration	on: 2/7/06
Conditions:		
	4	
Special Waste Liaison		7/8/03
Name, Title Signature		Oute

REV 1

@ Allied Waste Industries, February 2001

Allied Petrochemical

P.0. Box 459, Friendswood, TX 77549 281-393-1161

MATERIAL SAFETY DATA SHEET

November 2001

1 OF 4 PAGES

SECTION I - CHEMICAL AND COMPANY IDENTIFICATION

TRADE NAME:

OCS 200, 300, 400

PRODUCT DESCRIPTION: Oil Solution of carbonated calcium sulfonate

SYNONYMS: Overbased Calcium Sulfonate

GENERAL USES: OCS 200, 300, 400 are detergent/dispersants, acid neutralizers, and corrosion

inhibitors used as an additive in lubricating oils, greases and coatings.

SECTION II - COMPOSITION, INGREDIENTS

Composition: The precise formula is a trade secret but a full disclosure will be made to a medical professional in the case of an emergency.

SECTION III - PHYSICAL AND CHEMICAL DATA

ODOR: Mild Petroleum

APPEARANCE: Dark Colored, viscous liquid

TYPICAL PROPERTIES: (not specifications)

FLASH POINT: **BOILING POINT:** >160 Deg C, 320 Deg F (PMCC) >260

VAPOR PRESSURE: <0.0003 mm Hg SOLUBILITY IN WATER:

VISCOSITY:

Negligible @ 25 Deg C >180 cSt @ 100 Deg C

SPECIFIC GRAVITY: TOTAL BASE NUMBER:

1.2 @ 15 Deg C 200 - 400 mg KOH/gr

OCS 200, 300, 400

2 OF 4 PAGES

SECTION IV - FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA: CO₂, Dry Chemical, Foam, or Sand/Earth. Closed containers may be cooled with water to prevent rupture.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known

SPECIAL FIRE FIGHTING PROCEDURES: Use self contained breathing apparatus with full face shield and protective clothing.

EXPLOSION DATA: Material does not have explosive properties.

SECTION V - REACTIVITY DATA

STABILITY: Stable under normal conditions and use.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Do not heat above flash point. Avoid strong oxidizing agents such as hydrogen peroxide, bromine, and chromic acid.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of sulfur, carbon monoxide/dloxide, calcium and other organic/inorganic compounds may form during combustion.

SECTION VI - HEALTH HAZARD DATA

ACUTE EFFECTS FROM OVEREXPOSURE: May cause eye and skin irritation. Inhalation of vapors (at elevated temperatures) or mists could mildly irritate the upper respiratory tract. following the handling procedures and safety precautions in this MSDS will help avoid and/or minimize employee exposure.

CHRONIC EFFECTS FROM OVEREXPOSURE: Long-term or repeated skin exposure may cause development of dermatitis.

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Remove person to fresh air if adverse effects are observed. If breathing is difficult, give oxygen and call a physician.

EYE CONTACT: Flush eyes with large amounts of water for at least 15 minutes or until irritation subsides.

SKIN CONTACT: Wash with soap and water. Remove contaminated clothing. Get medical attention if irritation develops. Launder contaminated clothing before reuse. Discard contaminated leather goods. If hot material contacts skin, cool immediately with water, Severe or blistered burns should be treated by a medical professional. Call a physician.

INGESTION: Seek medical attention immediately. If conscious, give 2 glasses of water. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. NEVER give anything by mouth to an unconscious person.

OCS 200, 300, 400_

3 OF 4 PAGES

SECTION VII - SPILL OR RELEASE PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spill and stop leak at the source if safe to do so. Notify the appropriate authorities. Use cautious judgment and a contract service when cleaning up large spills. Soak up small spills with absorbent medium and transfer to suitable disposal containers. Dispose of properly. Notify authorities if spilled product enters sewers or waterways.

WASTE DISPOSAL: Do not flush directly to sewer or surface waters. Incineration, landfill and biological treatment are all possible methods of disposal. Obey all federal, state and local regulations.

SECTION VIII - PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Not normally required if area is adequately ventilated. If used in an application where a mist may be generated, observe a TWA/PEL of 5 mg/m for mineral oil. Use NIOSH/MSHA approved disposable dust/mist mask if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, or for other poorly ventilated areas and for large spill clean-ups.

VENTILATION: If product use generates a mist of vapor, local exhaust ventilation is recommended.

PROTECTIVE GLOVES/BOOTS/CLOTHING: Oil resistant rubber gloves, boots and coverall.

EYE PROTECTION: Chemical goggles or face shield.

SECTION IX - PRECAUTIONS FOR SAFE HANDLING AND USE

HANDLING PROCEDURES: Keep containers closed when not in use. Wash hands thoroughly before meals and after handling.

STORAGE PROCEDURES: Store in closed containers away from heat, sparks, open flame, or oxidizing materials. Fire extinguishers should be kept available. Product can be stored at a maximum temperature of 100 C. Cold temperatures may cause the material to become more viscous and more difficult to pump.

SECTION X - OTHER INFORMATION

U.S. DOT: NOT REGULATED UNLESS SHIPPED HOT, at temperatures greater than 100C (212) but below the flash point and in containers of 450 liters (119 US gallons) or more. FOR THESE CONDITIONS USE:

US DOT Proper Shipping Name: Elevated Temperature, Liquid, 65 Petroleum Oll, n.o.i.b.n. (at or above 100 C (212 F) and below its flash point).

US DOT Hazard Class:9
US DOT ID Number: UN3257

OCS 200, 300, 400 4 OF 4 PAGES

CANADIAN DSL: All components are in compliance with the Canadian Environmental Protection Act and are present on the DSL (Domestic Substance List).

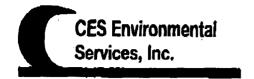
HMIS CODES

HEALTH - 1

FLAMMABILITY - 1

REACTIVITY - 1

7137488664 P.001/00



4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 7+8-8664

Waste Profile Re-Certification Form

CES Waste Approval #:	HOU-1977	- WC#00045191

Customer:

Allied Petrochemical LLC

Waste Generator:

Allied Petrochemical LLC

Waste Stream Name:

Centrifuge sludge from process

Expiration Date:

12/28/2008

As per our waste analysis plan, CES Environmental Services, Inc. requires recertification of all approved waste profiles on an annual basis. The purpose of this form is to confirm that no changes have been made in the generation process of the aforementioned waste stream and that the waste stream remains classified as non-hazardous as per 40 CFR 261.3.

Generator hereby certifies that the components in the aforementioned waste stream and the process generating this waste stream remain the same as when issued the aforementioned CES Waste Approval Number: (Check Appropriate Box)

No changes, please recertify.

O Please send new profile as waste stream has changed.

Allied Petrochemical LLC Customer Name Signature

г В...........

President
Company/Title

03/09/09

Date

O Analysis is NOT required for recertification.

The following analysis is required for recertification. Please sumbit results of the following tests.

D TCLP Metals

- O TCLP Volatiles
- O TCLP Semi-volatiles V
- O Reactivity
- O Corrosivity
- O Ignitability

Allied Pethochemical LLC 1978 Prof# 1978

4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/28/2006

Dear Jack Kessel

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1978

Generator: Allied Petrochemical LLC

Address: 2330 FM 2917

Alvin, TX 77511

Waste Information

Name of Waste: Unused oil additives TCEQ Waste Code #: 00106091

Container Type:

Detailed Description of Process Generating Waste:

Unused oil additives

Color: clear to amber

Odor: petroleum

pH: 2.1-11

Physical State:

Incompatibilities: none known

Safety Related Data/Special Handling:

Standaed

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc. FAX NO. :2813931242

Dec. 28 2006 11:44PM P1

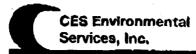
DEC-27-2006 15:45

CES Environmental Svcs.

7137488664

1978

P.02



4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No. 30948

U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Gener	ator information				
Company:	Alliez De	trachemica	.\		• .
Address:	7-330	Fm 2917			
City, State, 2ip:	Aluin		77512		
Contact:	A ACK	KESSE/1	Title :	· · · · · · · · · · · · · · · · · · ·	An 466
Phone No :	281-8	104- 6226	Fax:		
24 / HR Phone:	**************************************				
U.S EPA ED No :		(8)			
State I.D :	-418 bs	87747	SIC Cod	• •	
SECTION 2: Billing	information				
Company:	Allie & P	throchemic	_\	•	
Address:	P.O. Box	459			
City, State, Zip :	Friendsw	x7 5000	777549		
Contact:	JACK K	E >5 ()	Title :		
Phone No:	281 -80	B-6226	Fax:		
SECTION 3: Gener	al Description of the Wa				
Name of Waste:	Unused oil	additives			
!Inused	l oil additiv	C			•
Physical State:	X'Llquid	📑 Śludge	Powder		
•	Solid	Filter Cake	☐ Combination		
Color:	Clear	to Amber	_Odor :	PEZZOLE	<u> </u>
Spacific Gravity ((Water=1):	S to 1.03	Density:	7.6 4	5 8.6 lbs/gal
Layers:	Single-Phas	Multi-Phase			
Container Type :	Drum 🗀	Tote 📋 Tr	uck 📋 Other (e	mplain)	المارية المارية المارية المارية المارية المارية المارية المارية المارية المارية المارية المارية المارية المارية
Container Size :	5 <u>5</u>			,,,,	
Number Of Units	: <u>50</u>	. 1 0 1		•	
Texas State Was	te Code No :	1100001		_ ~ . \	1 . 1
Proper U.S. State	Waste Code No : 👤	UON RCRA	NON DO	REGILLA	teg Morecial
Class:	UN/N	A: NA		74	RQ: NA
Flash Poir	nt pt	Reactiv	\ I	ective Cyanides	Solids
>200		11 _1	J/F mg/l	N/ + mg/l	NA %
Oil and Gre	aee TO		inc mg/l	Copper mg/l	Nickel mg/l

DEC-27-2006 15:45 CES Environmental Svcs.

7137400664

P.03

SECTION 4: Physical and Chemical Data	-
EP3659	0-100 %
Infarium V386	0-100
- Cobrate TT 10 DP	- 0-100 %
SECTION 5: Safety Related Data	-
If the handling of this waste requires the use of special protective	equipment, please explain.
Standard PPE	
SECTION & Attached Supporting Documents	
List all documents, notes, data, and/or analysis attached to this fo $M \subseteq D \subseteq S$	rm as part of the waste approval package.
SECTION 7: Incompatibilities	
Please list all incompatibilities (If any):	·
NONE KNOWN	
SECTION 8: Generator's Knowledge Documentation	
Laboratory analysis of the hazardous wasts characteristics, listed	below, WAS NOT PERFORMED based upon the
following generators knowledge TCLP Metals: ✓	•
TCLP Voletiles :	
TCLP Semi-Volatiles !	
Reactivity:	
Corrollvity:	
Ignitability:	
SECTION & Generator's Certification	_
The information contained herein is based on A generator knowled above and attached description is complete and accurate to the best deliberate or willful omissions of composition properties exist and disclosed. I certify that the materials tested are representative of all	et of my knowledge and ability to determine that no that all known or suspected hazards have been
Authorized Signature :	Date: 12-27-06
Printed Name / Title: J. A. Kessel / President	
CES USE ONLY (DO NOT WRITE IN THIS SPACE)	Special Pricing / Analytical Info:
Compliance Officer:	DL
Date: 17-25-06 Status: Approved Rejecte	ed Recommended Treatment:
Approval Number: 1978	

SECTIO	DN 10: Waste Receipt Classification Under 40 CFR 437
ls this	material a wastewater or wastewater sludge? 📳 YES 🔼 NO
If 'YES	', complete this section
PLEAS	SE CHECK THE APPROPRIATE BOX: IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE
Matals	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phospha Vibratory deburring wastewater
	Alkaline and acid solutions used to clean metal parts or equipment
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation wastes Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes
Organ	nics Subcategory Subpart C Landfill leachate
	Contaminated groundwater clean-up from non-petroleum sources
	Solvent-bering wastes Off-specification organic product
	Still bottoms
	Byproduct waste glycol
	Wastewater from paint washes
	Wastewater from adhesive and/or epoxies formulation
	Wastewater from organic chemical product operations
	Tank clean-out from organic, non-petroleum sources

IHW020

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY Notice of Registration Industrial and Hazardous Waste

Page: Date:

05/09/06

This registration does not constitute authorization of any waste management activities or facilites listed below. The registration reflects hazardous and/or industrial waste generation and management activities for which the registrant has provided notification. Requirements for solid waste management are provided by Texas Administrative code section 335 of the rules of the Texas Commission on Environmental Quality (TCEO). Changes or additions to waste management methods referred to in this notice require written notification to the TCEO.

Solid Waste Registration Number: 87747 EPA Ic: TXR000065300

The Solid Waste Registration Number provides access to computerized and filed information pertaining to your operation. Please refer to that number in any correspondence.

Company Name: Allied Petrochemical LLC

Region: 12 County: 20 Brazoria Initial Registration Date: 05/24/2005 Last Amendment Date:

05/03/2006

Site Name:

Allied Petrochemical Site Location: 2330 FM 2917, Distillation and Sulfonation Area, Alvin, TX

Last Date NOR Computer update:

05/09/2006

Primary Contact: Pettijohn Jr. E E Sonny

Title: Plant Manager

Phone: 281-393-1161

Mailing Address: PO Box 459

Site Street Address:

2330 FM 2917

Distillation and Sulfonation Area

Alvin, TX 77512

Reporting Method: STEERS

Friendswood, TX 77549-0459 Registration Status: Active Registration Type:

Generator

Hazardous Waste Generation Status: Large Quantity Generator

Generator Type: Industrial

Business Description: Distillation and Sulforation. Other permits: Wastewater: 0003903000

New Air Source Review: 70417

NAICS Code:

324110 Petroleum Refineries

Tax Identification #: 32003549469

Handler Status:

Operator Information

Name: Allied Petrochemical LLC

Phone: 281-393-1233

Addréss:

PO Box 459

Friendswood, TX, 77549-0459

Dwner Information

Name: Allied Petrochemical LLC

Phone: 281-393-1233

PO Box 459 Address:

Friendswood, TX, 77549-0459

Billing Address:

As of 05/03/2006 - the next unassigned sequence number for WASTES is 0010 and the next unassigned sequence number for UNITS is 005.

Section 335. Chapter 31 of the Texas Adminstrative Code specifies the notification, record keeping, manifesting and reporting requirements for hazardous and industrial solid wastes.

Post-it® Fax Note 7671	Date 12/19/06 pages 4
To Matt Bowman	from Jack Kessel
CouDept CES Environment.	[∞] Allied Petrochem.
	Phone # 281-393-1233
Fax # 713-676-1676	Fax# 281-393-1242



ETHYL PETROLEUM ADDITIVES INTERNATIONAL

EÚRO-TECH CENTRE

LONDON ROAD, BRACKNELL, BERKSHIRE. RG12 2UW, ENGLAND.

TEL.: 44 1344 304141

FAX: 44 1344 861032/44 1344 420666 Telex: 848291

MATERIAL SAFETY DATA SHEET

EMERGENCY TELEPHONE EUROPE INT: +32-2-507-20-64 (ETHYL CODE 964)

Date:

28 Apr 1999

Trade Name:

HiTEC 5770 Performance Additive

Ethyl Code:

EP3659

Composition/information on ingredients:

Chemical family

:Lubricating oil additive.

:This product is regulated as a preparation.

Hazardous components

Other information:

:No component is present at sufficient concentration to require a hazard classification for health in

accordance with EC Directives.

Hazards identification:

Symbol

:None.

R Phrase(s)

:None.

S Phrase(s)

:None.

First-aid measures:

Eyes

:In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin

:After contact with skin, wash immediately with

Ingestion

plenty of soap and water.

Inhalation

:Give 500 ml water to drink.DO NOT INDUCE VOMITING.

:Remove to fresh air.

Fire-fighting measures:

:In case of fire and/or explosion do not breathe

fumes.

Hazardous thermal decomposition products

:As for petroleum products.

:Oxides of carbon.

:In case of fire, use carbon dioxide, dry chemicals,

foam.

Accidental release measures:

:Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
:Take up small spills with dry chemical absorbent.
:Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent.
:May require excavation of contaminated soil.

Handling and storage:

:Products must be stored and handled at or below

120°C.

:Mechanical ventilation is recommended.

:Local exhaust is needed at source of vapours.

:Local ventilation is needed at bulk vessel openings

when handling heated materials.

:Avoid extremely high temperatures and strong

oxidizing agents.

Exposure controls/personal protection:

Materials/conditions to avoid

Respiratory

Eye

:None under normal conditions.

:Chemical goggles and face shield.

:Wear suitable gloves resistant to chemical penetration.

Hands Other

:Where contact with eyes or skin is likely, wear

suitable protection.

Physical and chemical properties:

Form

:Viscous liquid.

Colour

:Amber.

Odour

:Characteristic.

Density (°C) Vapour pressure, Pa (°C) :0.87 (15)

_

:<1000 (20) :1000.0 (100)

Viscosity, cSt (°C)

ht

Solubility in water, % weight (°C)

:Negligible.

Flash point, °C

:135 (PMCC)

Stability and reactivity:

Unusual fire and explosion

hazards

:None known.

Toxicological information:

Rat oral LD50 (mg/kg)

:>4000

Rabbit dermal LD50 (mg/kg)

:>4000

Ocular Dermal :Not expected to be an irritant.
:Not expected to be an irritant.

Inhalation

:Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation.

Ingestion

:Not expected to be toxic.

Other

:Based upon its composition and test results for

similar formulations.

Ecological information:

Mobility.

Ecotoxicity.

:Adsorbs on to soil and is not expected to be mobile.

:May require excavation of contaminated soil.

Persistence/Degradability.

:Not readily biodegradable.

:The product is inherently biodegradable but

contains components which may be persistent in the

Bioaccumulation. environment.

:Contains components with the potential to

bioaccumulate.

:Low water solubility.

:Spills may form a film on water surfaces causing

impaired oxygen transfer.

Disposal considerations:

:Dispose in a safe manner in accordance with

local/national regulations.

Transport information:

SEA: IMO Class

:Unregulated.

Marpol - Annex III:

:Unregulated.

ROAD/RAIL: ADR/RID Class

:Unregulated.

AIR: IATA/ICAO Class

:Unregulated.

Regulatory information:

Symbol

:None.

R Phrase(s)

:None.

HiTEC 5770 Performance Additive [EmgTel, #]: +32-2-507-20-64

S Phrase(s)

:None.

Inventories.

:This product is in compliance with the inventory

and notification requirements of:

:European Community Directives, USA TSCA.

Revised 28 Apr 1999

Supersedes: 25 Feb 1999

Prepared by: Health & Environment- Ethyl Europe.

FOR ADDITIONAL NON-EMERGENCY MSDS INFORMATION, CONTACT:

ETHYL PETROLEUM ADDITIVES LTD

EURO-TECH CENTRE

Tel.: 44 1344 304141, Telex: 848291, Fax: 44 1344 861032/44 1344 420666

This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. Ethyl makes no representation as to completeness or accuracy. In no event will Ethyl be responsible for damages of any nature whatsoever, resulting from the use or reliance upon the information and recommendations.

IN THE EVENT OF PURCHASING THIS MATERIAL, THE MATERIAL SAFETY DATA SHEET WILL BE UPDATED IN ACCORDANCE WITH DIRECTIVE 93/112/EC IF A SIGNIFICANT CHANGE OCCURS.

Address Contact Information

For additional product information, contact the Region Sales Office in your area:

In Australia:

In Japan:

Ethyl Asia Pacific Company Level 9, 20 Berry Street

Ethyl Japan Corporation Shiroyama Hills 19F

North Sydney, NSW 2060

3 - 1 Toranomon 4 - Chome Minatuo - Ku

Australia

Tokyo 105 Japan

Telephone number: 02 - 9923 - 1588 Business Hours: 9:00am - Emergency phone: 81 - 3 - 5401 - 2901

5:00pm

In Latin America

In Singapore:

Ethyl Corporation 550 Biltmore Way Suite 800

Ethyl Asia Pacific Company 111 somerset road #13 - 03

Coral Gables, Florida

Singapore 238164

USA 33134

Telephone number: 65 - 732 - 0822

Telephone number: 305 - 444 - 7963

In the United States: **Ethyl Corporation**

330 South Fourth Street

HiTEC 5770 Performance Additive [EmgTel. #]: +32-2-507-20-64

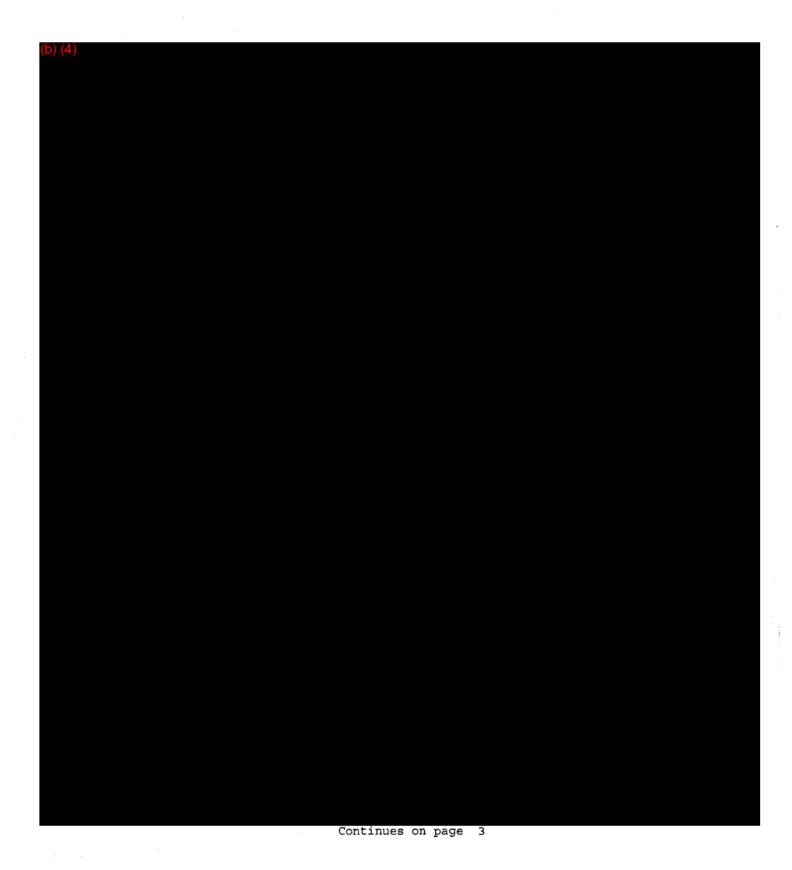
Richmond, Virginia USA 23218 - 2183

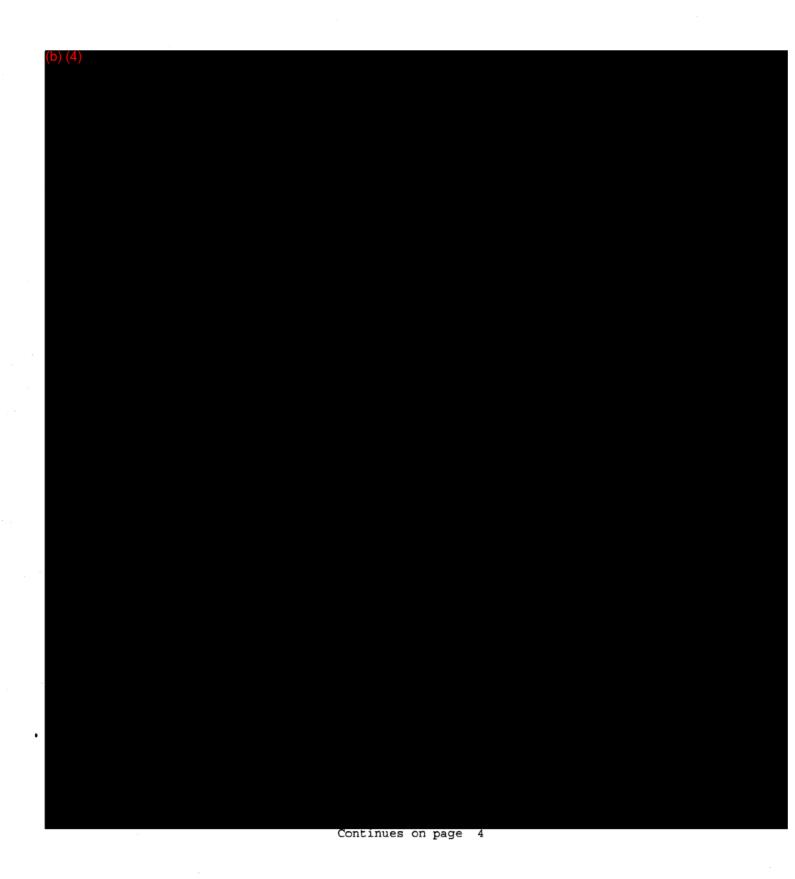
Telephone number: 804 - 648 - 7727

!!!!! END of MSDS!!!!!

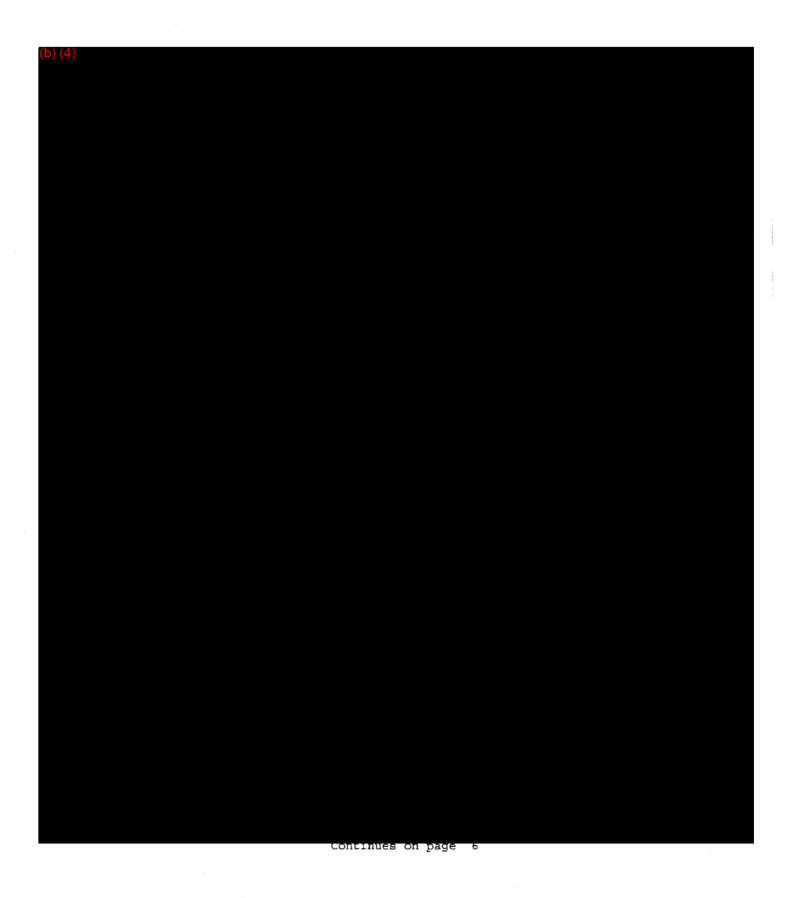
Date Printed: 8 January 2002

MATERIAL SAFETY DATA SHEET





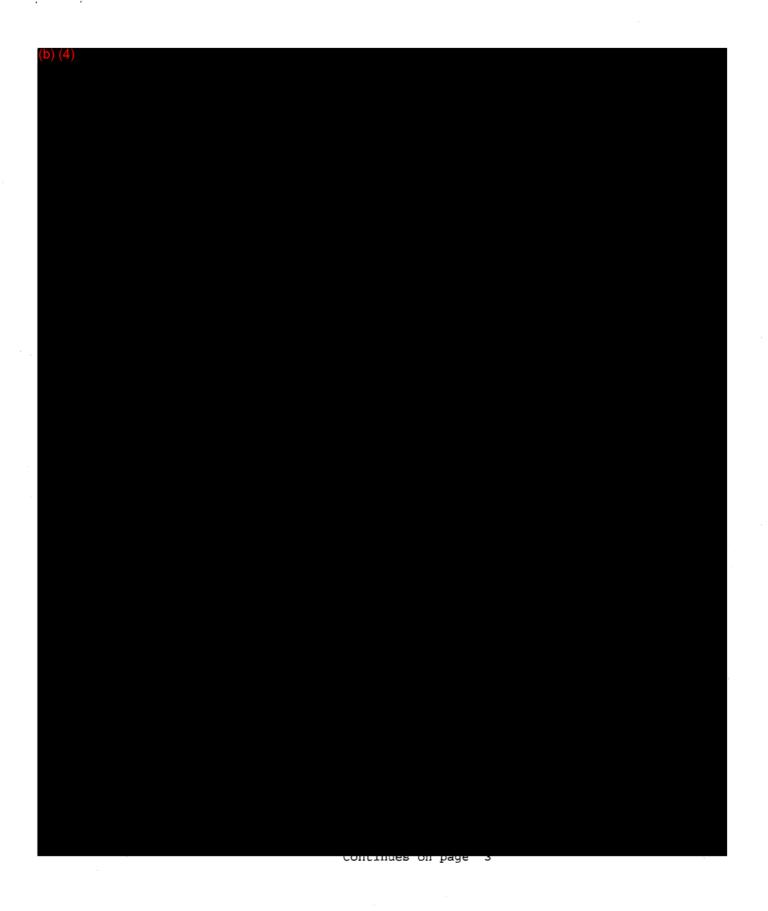


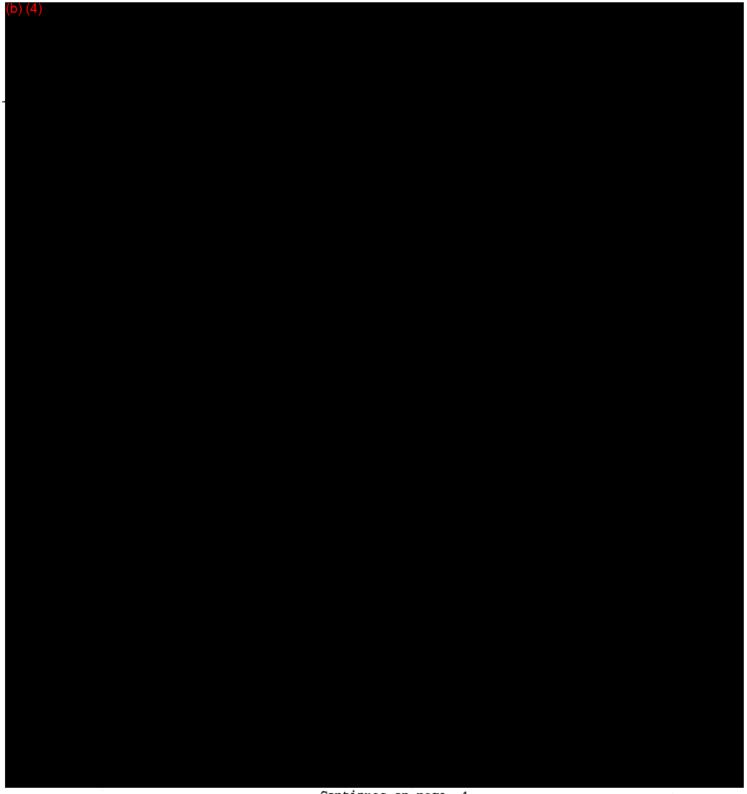


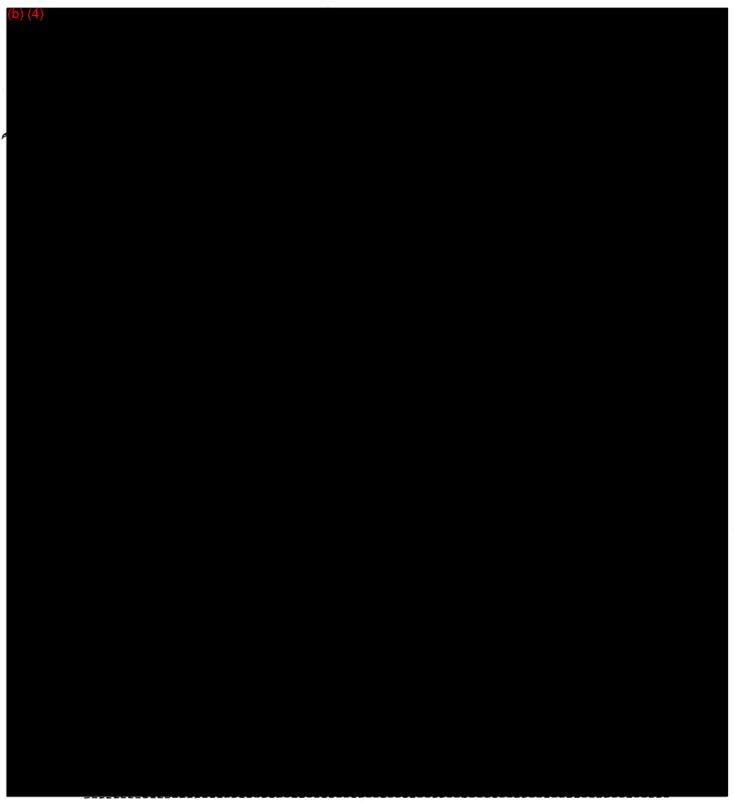


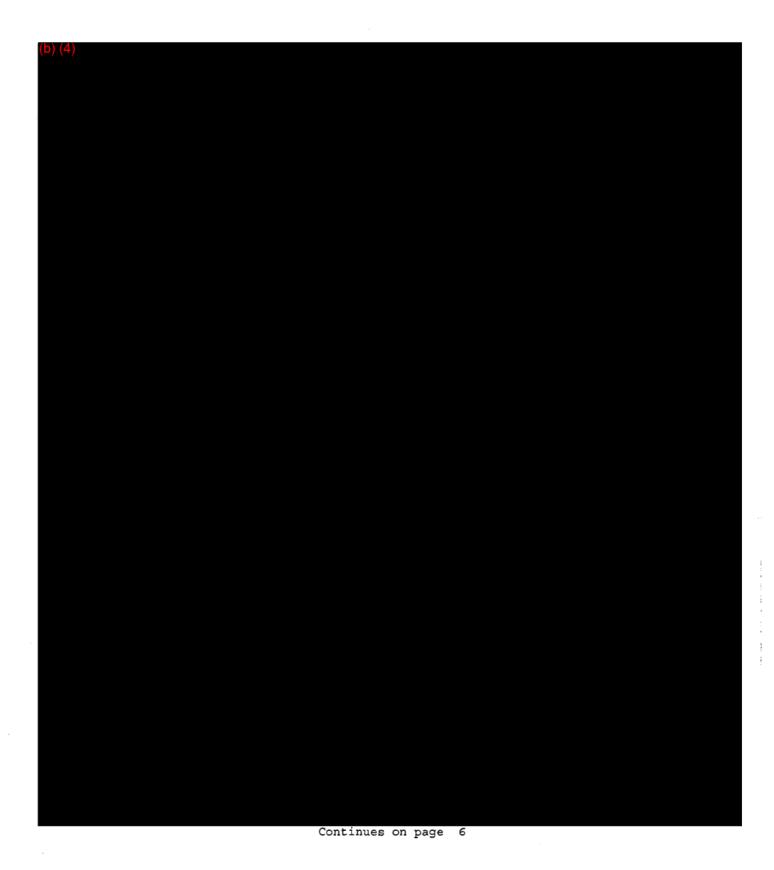
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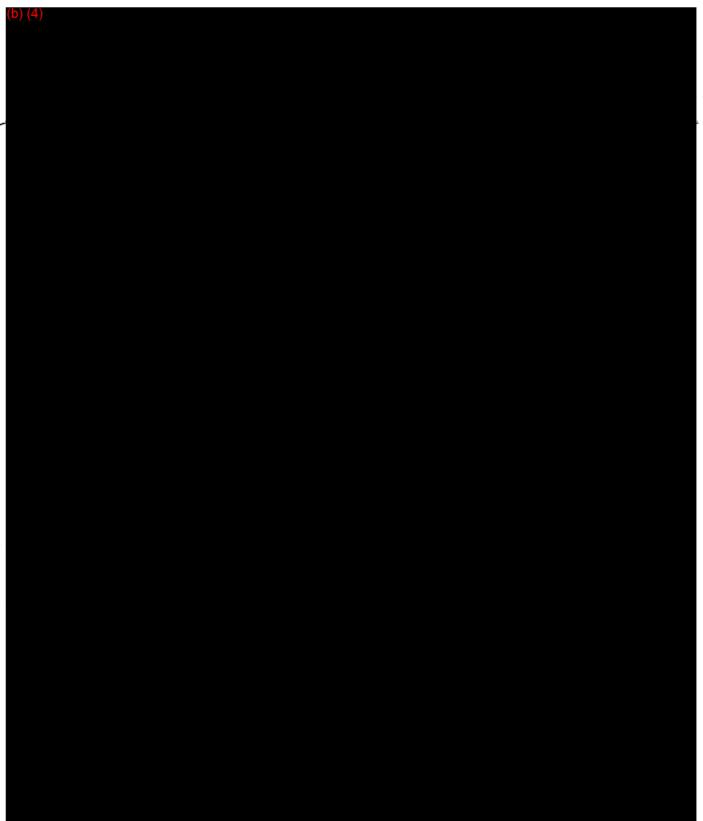


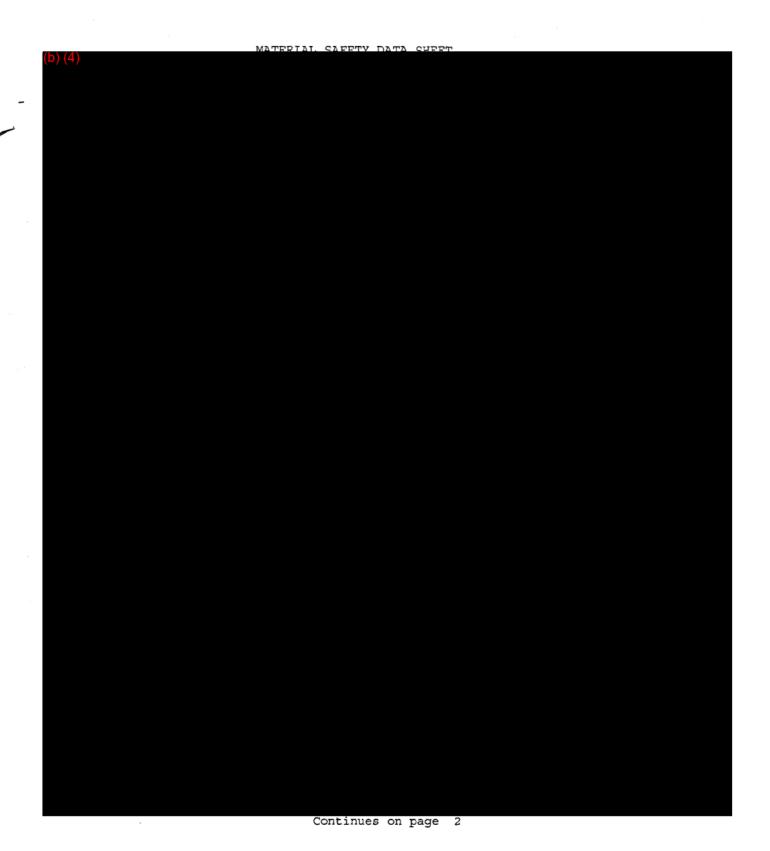


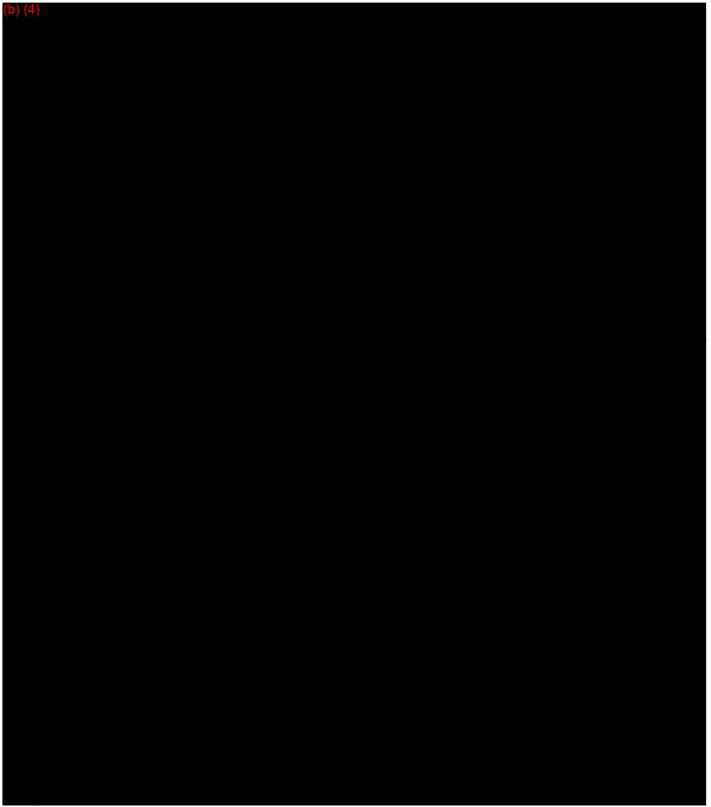


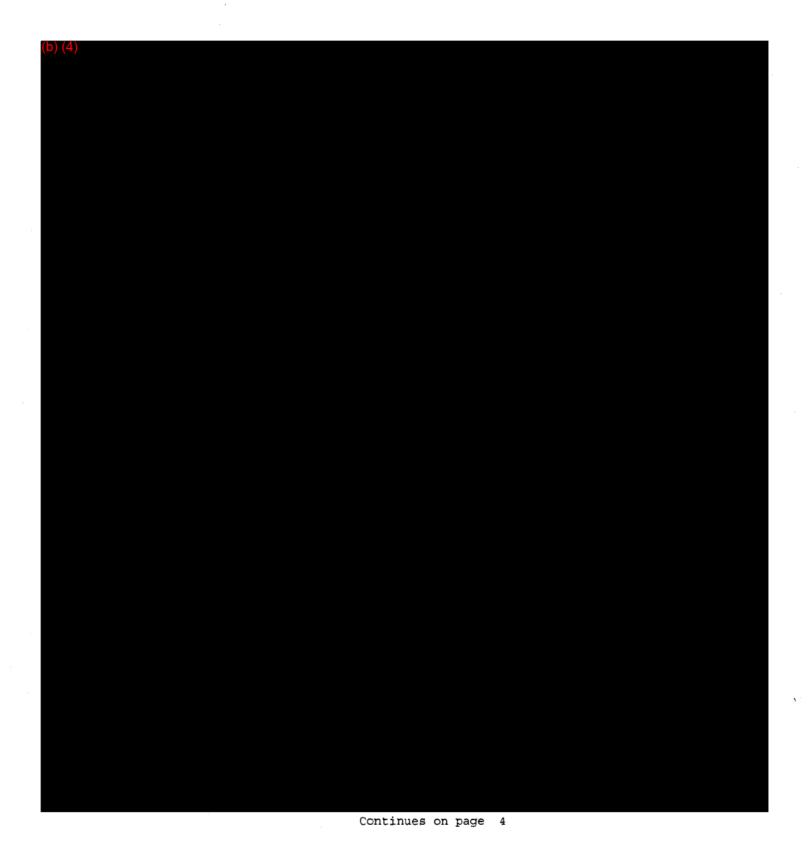


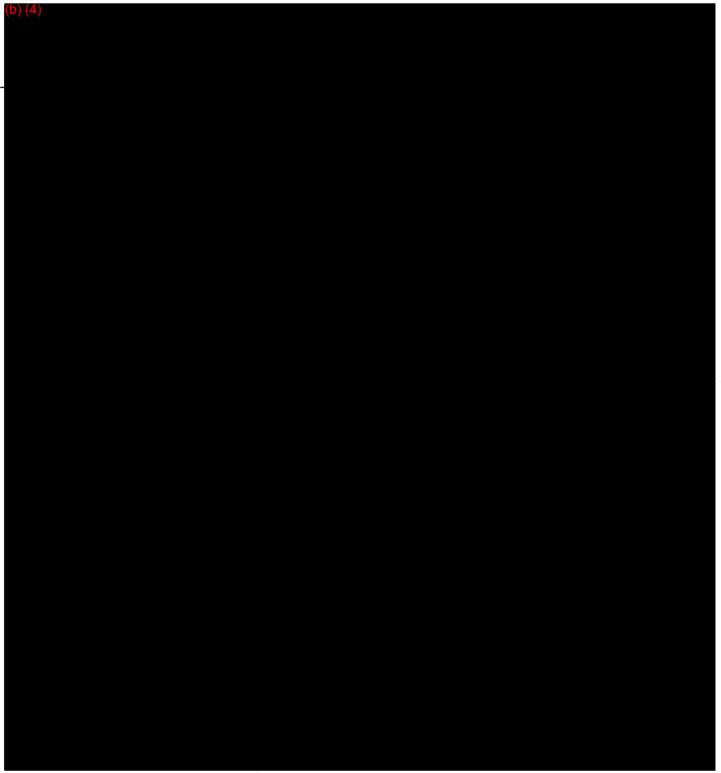


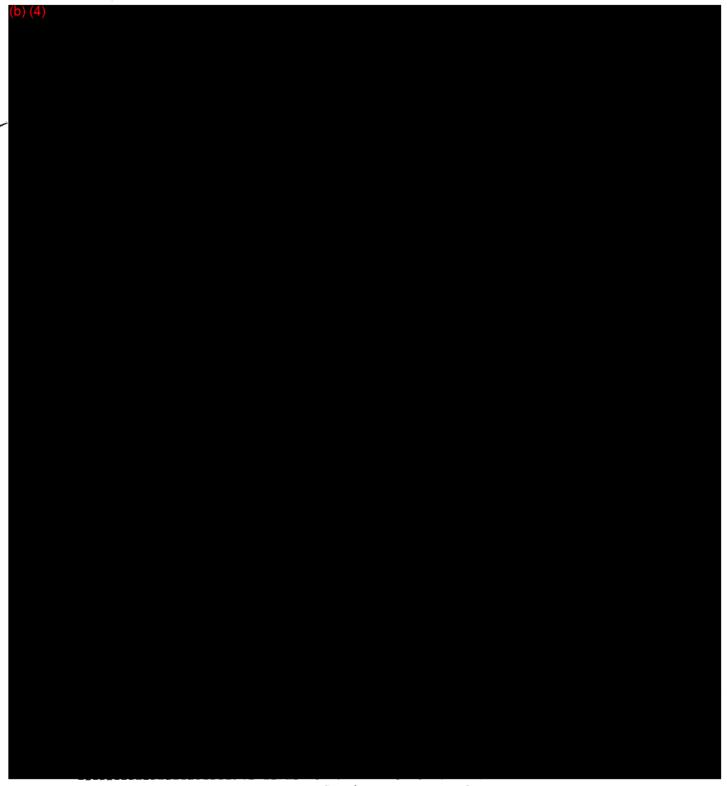




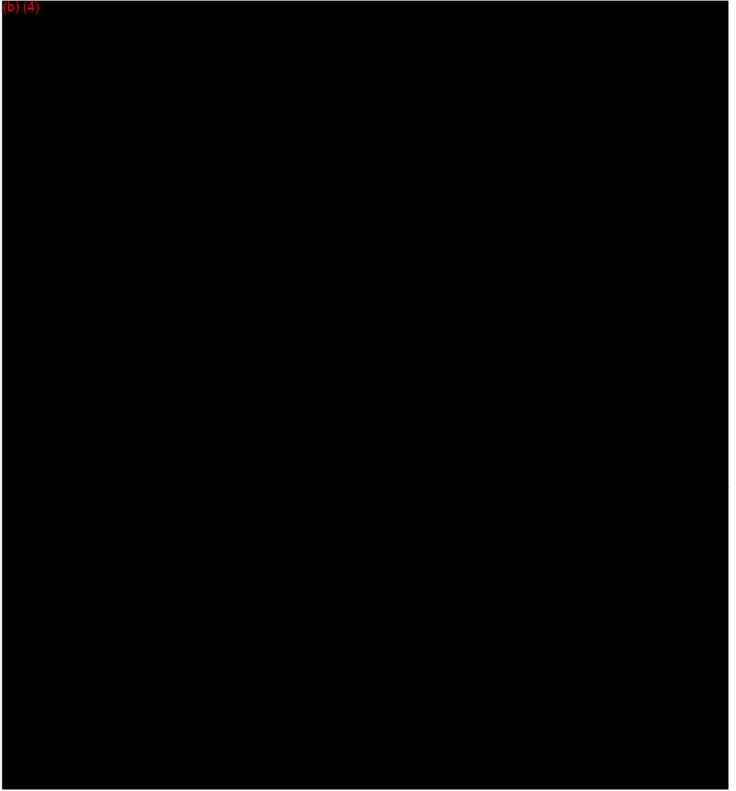








Continues on page 6



LAST PAGE

BW Seavices Raf # 1979

4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/28/2006

Dear Brandon Dougles

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1979

Generator: BW Services

Address: 1100 Wayne Drive

Angleton, TX 77515

Waste Information

Name of Waste: Unused recyclable 2-ethyl hexanol

TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

Unused product cleaned from a railcar

Color: clear

Odor: aromatic

pH: 4-8

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

Level D, Nomex

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

DB

4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

Fax: (713) 676-1676

1979

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No:_30900

Company:	SECTION 1: Gener	ator Information		 .	
City, State, Zip:					
Contact: Brandon	Address:	100 Wayne Drive			
Contact: Brandon Title: Manager Phone No: 979-848-8800 Fax No: 979-848-990	City, State, Zip:	Angelton, TX 775	515		
24/hr Phone: U.S. EPA I.D. No: TXD086467800 SIC Code: TXD086467800 SIC Code: SECTION 2: Billing Information — Same as Above Company: Address: City, State, Zip: Contact: Title: Phone No: SECTION 3: General Description of the Waste Name of Waste: Unusd Recyclable 2-Ethylhexanol Detailed Description of Process Generating Waste: Unused Product cleaned from a railcar Physical State: Liquid Solid Filter Cake Combination Color: Clear Odor: Aromatic Specific Gravity (water=1): 1.07 Density: 8-9 lbs/gal Layers: Single-phase Multi-phase Container Type: Single-phase Multi-phase Container Size: Single-phase Multi-phase Container Size: Single-phase Multi-phase Container Size: Single-phase Container Size: Single-phase Multi-phase Container Size: Single-phase Container Size: Single-phase Multi-phase Container Size: Single-phase Multi-phase Container Size: Single-phase Container Size: Single-phase Multi-phase Container Size: Single-phase Container Size: Single-phase Multi-phase Container Size: Solids Name/1 Recactive Cyanides Name/1 Name/1 Name/1 Nickel	Contact:			Title:	Manager
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Container Type: Drum Tote Truck Other (explain) Container Size: 55 Frequency: Weekly Monthly Quarterly Yearly Number of Units (containers): 1 Other: Texas State Waste Code No: Recycled Proper U.S. DOT Shipping Name: Combustible liquids, NOS (2-Ethylhexanol Class: 3 UN/NA: 1993 PG: III RQ: NAME Flash Point pH Reactive Sulfides Reactive Cyanides Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I N	Lavers:	Single-phase	☐ Multi-phase		
Container Size: 55 Frequency: Weekly Monthly Quarterly Yearly Number of Units (containers): 1 Other: Texas State Waste Code No: Recycled Proper U.S. DOT Shipping Name: Combustible liquids, NOS (2-Ethylhexanol Class: 3 UN/NA: 1993 PG: III RQ: NAME Flash Point pH Reactive Sulfides Reactive Cyanides Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I N	23ay 0150	Z Single pinnse			
Container Size: 55 Frequency: Weekly Monthly Quarterly Yearly Number of Units (containers): 1 Other: Texas State Waste Code No: Recycled Proper U.S. DOT Shipping Name: Combustible liquids, NOS (2-Ethylhexanol Class: 3 UN/NA: 1993 PG: III RQ: NAME Flash Point pH Reactive Sulfides Reactive Cyanides Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Namg/I Nickel	Container Type	Drum	☐ Tote	Truck	Other (explain)
Frequency:				Irack	Cther (explain)
Number of Units (containers): 1 Other:	Container Size:	<u> 55</u>			
Number of Units (containers): 1 Other:					
Number of Units (containers): 1 Other:	Frequency:	□ Weekly	☐ Monthly	Ouarterly	Yearly Vearly
Texas State Waste Code No: Recycled Proper U.S. DOT Shipping Name: Combustible liquids, NOS (2-Ethylhexanol Class: 3 UN/NA: 1993 PG: III RQ: ✓ Flash Point ≥ 160 pH Reactive Sulfides Namg/l Reactive Cyanides Namg/l Solids Namg/l Oil&Grease TOC Zinc Copper Nickel	• •				<u> </u>
Proper U.S. DOT Shipping Name: Combustible liquids, NOS (2-Ethylhexanol Class: 3 UN/NA: 1993 PG: III RQ: NA Flash Point ≥ 160 pH A-8 Namg/I Namg/I Namg/I Namg/I Namg/I Oil&Grease TOC Zinc Copper Nickel	`	′ -			
Class: 3 UN/NA: 1993 PG: III RQ: ✓ Flash Point ≥160 pH 4-8 Namg/I Reactive Sulfides Namg/I Reactive Cyanides Namg/I Solids Namg/I Oil&Grease TOC Zinc Copper Nickel	Texas State Waste C	ode No: R	ecycled		
Flash Point	Proper U.S. DOT Sh	ipping Name:	Combustible liquio	ds, NOS (2-Ethylhe	xanol
Flash Point	Class 3	IIN/N	1993	PC: III	RO: also
>160 4-8 Namg/I	C1435. J	OIV/IV	1///		
>160 4-8 Namg/I					
>160 4-8 Namg/I	Flash Point	nH	Reactive Sulfides	Reactive C	vanides Solids
Oil&Grease TOC Zinc Copper Nickel					
Namg/I Namg/I Namg/I Namg/I Namg/I		l .	Namg/I	Namg/I	Namg/I

SECTION 4:	Dhysiaal as	d Chamiant	13
NECTION 3:	POTEIPAL ON	a Chemirui	Dut

COMPONENTS TABLE The waste consists of the following materials	Cancentration Runges are acceptable	or %
2-E hythexanol	100	%
		
		

_	-
SECTION 5: Safery Related Data	
If the handling of this waste requires the use of special protective engineent, please captain.	
SECTION 6: Attached Supporting Cocuments	
List all documents, notes, data, and/or analysis attached to this form us part of the waste approval package.	Formatted
SECTION 7: Incompatibilities	
Mente list all incompatibilities (if any): Mone Ox. A veer 3	Formaned
SECTION 3: Generator's Knowledge Documentation	
Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:	•
TCLP Medala: X TCLP Volatiles: X TCLP SentLVulutiles: X Readivity: X Ignitability: X	
SECTION 9: Generator's Certification The information contained herein is based on generator knowledge und/or pullyfical data. I hereby contrib that the above and anached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or withful omissions of composition propunities exist and that all known or suspected hezards have been disclosed. I certify that the materials tested are representative of all materials described by this document.	
Authorized Signature: Date: 12/27/05	Formatted
Printed Name/Title: Stances Lake to Lite Desides	Formatted
	Formatted
CES USE ONLY (DO NOT WRITE IN THIS SPACE)	Formatted
Compliance Officer: Profesent The Additional Information	
Dute: 12-28-06 Approved Rejected REC	
Approval Number: 1979	
SECTION (II) What Translat Classification that a 40 Class 40	

2

Is this material a wastev	vater or wastewater sludge? YES	₫ NO	
If 'Yes', complete this s	ection.		
PLEASE CHECK THE	APPROPRIATE BOX. IF NO APPROPRI	ATE CATEGORY, GO TO THE NEXT	PAGE.
Metals Subcategory: Sub	part A		
Metal finishing rins Chromate wastes Air pollution contro Spent anodizing sol Incineration wastew Waste liquid mercu Cyanide-containing Waste acids and bas Cleaning, rinsing, a Vibratory deburring	vaters ry wastes greater than 136 mg/l ses with or without metals nd surface preparation solutions from electrop		
Oils Subcategory: Subpa	rt B		
Used petroleum pro Oil spill clean-up Bilge water Rinse/wash waters s Interceptor wastes Off-specification fu Underground storag Tank clean-out from Non-contact used g Aqueous and oil mi	ndwater clean-up from petroleum sources ducts from petroleum sources els ge remediation waste n petroleum or oily sources		
Organics Subcategory: So	ubpart C		
Solvent-bearing was Off-specification or Still bottoms Byproduct waste gly Wastewater from pa Wastewater from ad Wastewater from or	ganic product ycol		
			*
(1) If the waste cor	ntains oil and grease at or in excess of 100 mg	L. the waste should be classified in the oi	ls subcategory

⁽²⁾ If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

Cadmium: 0.2 mg/L
Chromium: 8.9 mg/L
Copper: 4.9 mg/L
Nickel: 37.5 mg/L

(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.

| Metals Subcategory
| Oils Subcategory
| Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

HOTELTE ANNO 7. JUME DAY INTI LUBISCIL

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The Chemical Company

HELPING MAKE PRODUCTS BETTER'M

Safety data sheet 2-ETHYLHEXANOL

2-ETHYLHEXANO
Revision date: 2004/04/26

Version: 1.0

Page: 1/7 (30034617/MDS_GEN_US/EN) CES

wa.

1. Substance/preparation and company identification

Company
BASF Corporation
100 Compus Drive
Florham Park, NJ 07932

24 Hour Emangency Response Information CHEMTREC: (800) 424-9300 BASF HOTLINE: (800) 632-HELP

Molecular formula: Chemical family: Synonyms:

C8 H18 O alcohols 1-Hexanol,2-Ethyl

2. Composition/information on ingredients

CAS Number 104-76-7 99.0 %

Chamical name 2-othylhexan-1-ot

3. Hazard identification

Emergency m/n/Minw

CAUTION: COMBUSTIBLE LIQUID. IRRITANT, MAY CAUSE CENTRAL NERVOUS SYSTEM DAMAGE BASED ON ANIMAL DATA.

REPEATED OVEREXPOSURE MAY RESULT IN TOXICITY.

MAY CAUSE LIVER DAMAGE BASED ON ANIMAL DATA.

MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA.

MAY ADVERSELY EFFECT THE DEVELOPING FETUS BASED ON ANIMAL DATA.

Use with local exhaust vontilation.

Wear NIOSH-certified chemical goggles.

Wour protective clothing.

Eye work fountains and safety showers must be easily acceptable.

Wear full face shield if splashing hazard exists.

Woar a NIOSH-certified (or equivalent) organic vapour respirator.

Potential health effects

Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, Ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Repeated dose toxicity:

Information on: 2-Ethylhexanol

Chronic exposure to 2-EH in animals resulted in kidney and liver demage. Studies in rats indicate that 3-EH has caused dose related maternal toxicity, embryotoxicity and teratogenicity when given orally on days 6-16 of pregnancy. Adverse effects were noted at 1.3 g/kg/day. Doses of 0.3.1 or 3 ml/kg/day applied dermally to pregnant rats for 6 hddsy on days 6-16 of pregnancy resulted in decreased maternal weight gain at 3 ml/kg/day and skin irritation at 1 and 3 ml/kg/day. No teratogenic effects were observed at any dose.



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information on: 2-Ethylhexyl ethanol

In BASF sponoured eludios of carcinogenicity in both rats and mice, 2-ethylhexenel was found to be noncercinogenic when administered to both sexes of F-344 rats by gavage five days a week over their lifetime. When 2-ethylnexanol was administered to 8603F1 mice in the same manner, an increased incidence of fiver cancer was observed in both sexes only at the highest dose tested (750 mg/kg). However, this finding Isdifficult to interpret as the mortality observed for both sexes at the highest doze (30%) was about 7-fold greater than that of control enimels (4%). Boood on these studies in rate and mice 2-city/hoxanol is unlikely to be carcinogenic at sublethal doses.

Medical conditions aggravated by overexposure:

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this cubclango/product. See MSDS section 11 - Toxicological Information.

4. First-aid measures

General advice:

Remove contaminated cothing.

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. immediate medical attention required.

Wash affected areas thoroughly with soop and water. If irritation develops, seek medical attention.

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

if swallowed:

Rings mouth and then drink plenty of water. Induce vomiting, Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

5. Fire-fighting measures

Flash point Autoignition: 78 °C 270 °C (DIN 51758) (DIN 51794)

Lower explosion limit:

1.1 %(V)

Upper explosion limit:

7.4 %(V)

Sultable extinguishing media:

water, dry extinguishing media, alcohol-resistant foam, carbon dioxide

Hazards during fire-fighting:

No particular hazards known.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

If exposed to fire, keep containers cool by spraying with water. Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition.

NFPA Hazard codes:

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Vorsion: 1.0

(30034817/MDS GEN US/EN)

Health; 2

Fire: 2

Special:

6. Accidental release measures

Personal precautions:

Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation, Can release flammable vapours, Note that gases are heavier than oir and can spread along the ground in the direction of the wind. Sources of ignition should be kept well clear.

Environmental precautions:

This product is not regulated by RCRA. This product is not regulated by CERCLA ("Superfund").

Cleanup

Spills should be contained, solidified, and placed in sultable containers for disposal.

Readivity: 0

7. Handling and storage

Handling

General advice:

Ensure thorough ventilation of stores and work areas.

Use antistatic tools. Ensure therough ventilation of stores and work areas. Protect against heat. Handic in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Prevent cloctrostatic charge - sources of ignillon should be kept well clear - fire extinguishers should be kept handy.

Avoid all sources of ignition: hoot, sparks, open flame. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Substance/product forms combustible mixtures with air Prevent electrostatic charge accumulation. Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignifican.

Sternog

General advice:

Containers should be stored tightly sealed in a dry place.

Avoid extreme heat. Keep away from sources of ignition - No smoking. Keep container tightly closed and dry.

Storage incompatibility:

General: Segregate from exidizing agents. Segregate from acids and bases.

8. Exposure controls and personal protection

Advice on system design:

Provide tood exhaust ventilation to maintain recommended P.E.L.



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2-ETHYLHEXANOL Revision date: 2004/04/26

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Personal protective equipment

Respiratory protection:

Wear the following respiratory protection if exposure limits may be exceeded: Do not exceed the meximum use concentration for the respirator facepiece/cartridge combination. Wear a NIQSH-certified (or equivalent) organic vapour respirator.

Hand protection:

Chemical resistant protective gloves, nitrile rubber (Buna N)

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if spleshing hazard exists.

Dody protection:

Body proteotion must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Work place should be equipped with a shower and an eye wash. Wear protective clothing as necessary to prevent contact. Avoid inhalation of vapours/mists. Avoid contact with the skin, eyes and clothing. Wash sciled clothing immediately. When using, do not out, drink or smoke. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Form:

liquid

Odour:

mild, sweetish

Colour:

olear

Freezing point Boiling point

-76 °C

184 °C

(DIN 53171)

Vapour pressure:

0 144 mbar 5.5Z mbar

(20°C)

Density:

0.84 g/om3

6.8 mPa,s

(20 °C) (DIN 51757)

Partitioning coefficient n-

octanol/water (log Pow): Viscosity, dynamic;

(20 °C) The value was determined by calculation from the detected kinematic

Solubility in water:

1 9/1

vigoosisty. (approx. 20 ℃)

10. Stability and reactivity

Conditions to avoid:

Avoid extreme heat, Avoid sources of ignition.

Substances to svoid:

oxidizing agent, organic acids, alkalies

Huzardous reactions:

The product is chemically stable.

Reacts with aluminum at high temperature.

Decomposition products:

carbon monoxide, carbon dioxide

Corrosion to metals:

No corresive effect on metal,



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11. Toxicological information

Acute toxicity

Gral:

LO50/mt 3,730 mg/kg

inhalation:

rati

Inhalation-risk test (IRT); No mortality within 8 hours as shown in onimal studies. The inhalation of a highly saturated vaponali mixture represents no acute hazard.

Demial

LD50/rat: > 3,000 mg/kg (OECD Guldoline 402)

8kin irritation:

rabbit: Irritant (OECD Guideline 404)

Eye irritation :

rabbit: tritant (OECD Guidoline 405)

Chronic toxicity

Carcinogenicity:

No compound related carcinogenic effects.

Developmental toxicity/teratogenicity:

No teratogenic effects.

No embryotoxic effects.

12. Ecological Information

Environmental fate and transport

Blodegradation;

Test method:

OECD Guideline 301 F

BOD of the ThOD

Method of enalysis: Degree of elimination:

> 60 %

Eveluation:

Blodegradable.

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Environmental toxicity

Acute and prolonged toxicity to fish: golden orie/LC50 (96 h): 17 mg/l

Acute texicity to aquatic invertebrates:

Directive 84/449/EEC, C.2 Daphnia magne/ECSD (48 h): 39 mg/l

Nominal concentration

Toxicity to microorganisms:

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DIN/EN/ISO 8192-DECD 209-88/302/EEC,P. C activated sludge, domestic/EC20 (0.5 h); 100 mg/l Inhibition of degradation activity in activated studge is not to be anticipated during correct introduction of low concentrations,

13. Disposal considerations

Woste disposal of substance:

Must be dumped or incinerated in accordance with local regulations.

Do not discharge substance/product into sower system.

Dispose of irr accordance with national, state and local regulations.

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers,

14. Transport Information

Reference Bill of Lading

15. Regulatory information

Federal Requiations

OSHA hazard category:

Skin and/or eye irritant, Combustible Liquid, Toxic - dermal, Chronic target

organ effects reported. Acute larget organ offects reported

SARA hazard categories (EPCRA 311/312): Acute, Fire, Chronic

State regulations

State RTK

CAS Number

104-76-7

Chemical name 2-ethylhexan-1-ol State RTK MA, PA

16. Other information

HMIS III rating

Health: 2

Flammability: 2

Physical hazard: 0

HMIS uses a numbering deale ranging from 0 to 4 to Indicate the degree of hezord. A value of zero means that the substance possesses edeenticity no hozord; a rating of four indicates high hazerd.

Local contact information PROD_STEW_CA_CP_CZ@BASF.com +1 973 426 4670

- BASF

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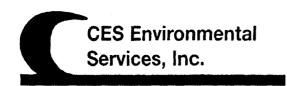
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4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 12/28/2006

Dear Brandon Dougles

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1980

Generator: BW Services

Address: 1100 Wayne Drive

Angleton, TX 77515

Waste Information

Name of Waste: Unused diphenyl oxide

TCEQ Waste Code #: 00114091

Container Type:

Detailed Description of Process Generating Waste:

Unused product cleaned from a railcar

Color: white

Odor: aromatic

pH: na

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 39048 U.S. EPA ID No: TXD008950461 ISWR No: 30900 力B #1980

SECTION 1: Gener						
Company:	BW Services	·		·		– *
Address: -	100 Wayne Drive	·				
City, State, Zip:	Angleton, TX 7751					•
Contact:	Brandon			lanager		
Phone No:	979-848-8800		Fax No: 9	79-848-9990		
24/hr Phone:	979-848-8800			• (
U.S. EPA I.D. No:	TXD086467800			~ \ \ \		
State I.D.	30207		SIC Code:			
SECTION 2: Billing	Information – 🔀 S	ame as A hove	•	ar * *		
Company:	THO MATON VALO	ant us /tbove				
Address:		······································				
City, State, Zip:	 					[Farmand
Contact:		Title:				Formatted
Phone No:		Fax No	:			Formatted
		•			11 11 i	Formatted
SECTION 3: Gener	al Description of the	Waste			11.1	Formatted
Name of Waste: Uni	and Dinhamil Ouida				1117 1117	Formatted
		ng Waste: Unused prod	luct cleaned from a rail	car	Hir i	Formatted
·		_			#/ // . #: //:	Formatted
Physical State:		Sludge			$ \frac{f(x)}{h}$.	Formatted
	⊠ Solid	Filter Cake	☐ Combination		#: / ; #: /	Formatted
Color: White	·	dor: Aromatic). 	Formatted
L Voidi.						Formatted
Specific Gravity (wa	ter=1): <u>1.07,</u>	Density: 8-9 lbs/gal			/	Formatted
		_				Formatted
Layers:	Single-phase		2			Formatted
Container Type:	Drum	□ Tote	Truck	Other (explain)	Z + [Formatted
Container Type.	_ <u> </u>		· — - *13 MCV	□ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Formatted
Container Size.	<u> </u>		. —		` .]	Formatted
Fraguenava	□ Weekby	Monthly	N Quarterly	Noarly	J	Formatted
Number of Units (co		Other:	M Varieti	Titanik		Formatted
Texas State Waste C	. —		4 1		", "	Formatted
		Doll 40	DOT Regulated Waste	Calida		Formatted
Proper U.S. DOT Sh						Formatted
Class: Na	UN/NA	\: Na	PG: Na	RQ: Na		Formatted
				***************************************	_	Formatted
Flash Point	pH	Reactive Sulfides	Reactive Cyani			Formatted
<u>≥200</u>	<u>Na</u>	Namg/I	Namg/I	Ma NO		Formatted
Oil&Grease	TOC	Zinc	Copper	Nickel	 	Formatted
Namg/I	Namg/I	Namg/l	Namg/I	Namg/i		Formatted
					į	Formatted

St	CTION 4: Physical and Chemical Data							
	COMPONENTS TABLE	Concentration	Units					
L.	The waste consists of the following unsterials	Runges are acceptable	or %					
Di	phenyl Oxide	100	%.					
			 					
<u> </u>			— —					
-								
-			 					
<u> </u>		<u>-</u>						
C.F	THAN A. S. C. D. L. L. A. D. L.	•		- ·				
	ITHON 3: Safety Reluted Data							
<u> </u>	the handling of this wante requires the one of special protective equip	ment, please explain,						
	TION 6: Aducted Supporting Documents			_				
اللها Ni	d all documents, notes, data, and/or analysis attached to this form as IDS	bant of the music abbiding backet	<u> </u>	Formatted				
-	1000 7: Incompa <u>tibilities</u>							
. —								
	ase list all incompatibilities (if may):			Formatted				
<u>SF</u>	CTION 8: Generator's Knowledge Documentation							
l.s gr	Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:							
T(T(Re Co	L.P Motals: X L.P Volatiles: X L.P Semi-Volatiles: X scrivity: X trusivity: X stability: X		• .					
SY	CTION 9: Generator's Certification			•				
ente entre	information contained herein is based on \(\times \) generator knowledge and, ched description is complete and occurate to the best of my knowled ssions of composition properties exist and that all known or suspected and are representative of all materials described by this document.	ac and ability to determine that ne	deliberate or willful					
l Au	horized Signature:	Date: 12/27/06						
				Formatied				
Pr	need Name/Title: Boundar White Vic	ce Presiden	⊁	Formatted				
	•			Formatted				
CE	USE ONLY (DO NOT WATE IN THIS SPACE)			Formsmed				
Co	impliance Officer Nobles Comments	nat Information:						
Da	e: 12-29-06 Approved Rejected	<u> </u>						
Ap	proved Number: 1980							
SE	(TION 10: Words Receipt Classification Under 40 CFR 437							

†998**0**†2812

₹0.9

ls	this material a wastewater or wastewater sludge	e? 🗌 YES 🛮 🖾 N	O	
lf	Yes', complete this section.			
PI	EASE CHECK THE APPROPRIATE BOX.	IF NO APPROPRIATA	E CATEGORY, GO TO THE	E NEXT PAGE.
Meta	ds Subcategory: Subpart A			
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sl Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation sol Vibratory deburring wastewater Alkaline and acid solutions used to clean met	ng/l s lutions from electroplati	ے ing or phosphating operations	
<u>Oils</u>	Subcategory: Subpart B			er.
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from pet Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily source Non-contact used glycols Aqueous and oil mixtures from parts cleaning Wastewater from oil bearing paint washes	s		
<u>Orga</u>	nics Subcategory: Subpart C			
	Landfill leachate Contaminated groundwater clean-up from not Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies fo Wastewater from organic chemical product of Tank clean-out from organic, non-petroleum s	rmulation perations		

- (1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
- (2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

Chromium: 8.9 mg/L
Copper: 4.9 mg/L
Nickel: 37.5 mg/L

(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.

| Metals Subcategory
| Oils Subcategory
| Organics Subcategory | Organics Subcategory |

SECTION 11 Additional Instructions

Cadmium: 0.2 mg/L

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

U+LX 74026 U+LX 722 55

WLX 72122

Product name: DIPHENYL OXIDE Solutia Inc. Material Safety Data Sheet Reference Number: 00000000127 300m

Page 1/7 Date: 05/18/2005 Version 5.2/E

Solutia Inc.

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Solid

Product name:

DIPHENYL OXIDE

CES

Reference Number:

000000000127

Date:

05/18/2005

Company Information:

United States:

Solutia Inc.

575 Maryville Center Drive, P.O. Box 66760

St. Louis, MO 63166-6760

Emergency telephone: Chemtree: 1-800-424-9300

Non-Emergency telephone: 1-314-674-6661

Mexico:

Solutia MEXICO, S. DE R.L. DE C.V.

Paseo de la Reforma No. 2654 Piso 3-A

Col. Lomas Altas

C.P. 11950 Mexico D.F.

Emergency telephone: SETIQ: (in Mexico) 01-800-002-1400

Non-Emergency telephone: (in Mexico) 01-55-5259-6800

Canada:

Solutia Canada Inc. 6800 St. Patrick Street

LaSalle, PQ 118N 2113

Emergency telephone: CANUTEC: 1-613-996-6666

Non-Emergency telephone: 1-314-674-6661

Brazil:

Solutia Brazil Ltd.

Avenue Carlos Marcondes, 1200

CEP: 12241-420-São José dos Campos/SP-Brazil

Emergency telephone: 55 12 3932 7100 (PABX)

Non-Emergency telephone: 55 11 3365 1800 (PABX)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Form:

crystalline, solid

Colour:

white to colourless characteristic, aromatic

WARNING STATEMENTS

WARNING!

Causes eye irritation -

Causes respiratory tract irritation

POTENTIAL HEALTH EFFECTS

Likely routes of exposure:

eye and skin contact

inhalation

Eye contact:

Highly irritating to eyes.

0-0-0

(ZG)

Product name: DIPHENYL OXIDE Solutia Inc. Material Safety Data Sheet Reference Number: 000000000127

Page 2/7 Date: 05/18/2005 Version 5.2/E

Skin contact:

No more than slightly irritating to skin. No more than slightly toxic if absorbed,

Inhalation:

Severely irritating if inhaled,

No more than slightly toxic if inhaled.

ingestion:

No more than slightly toxic if swallowed.

Significant adverse health effects are not expected to develop if only small

amounts (less than a mouthful) are swallowed.

Signs and symptoms of

overexposure:

sneezing coughing runny nose

cough/breathing difficulty

Refer to Section 11 for toxicological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

ComponentsCAS No.Average
concentrationConcentration
rangeUnitsdiphenyl ether101-84-8100.0>=0.0 - <=0.0</td>%

4. FIRST AID MEASURES

If in eyes:

Immediately flush with plenty of water for at least 15 minutes.

If easy to do, remove any contact lenses.

Get medical attention.

Remove material from skin and clothing.

If on skin:

Immediately flush the area with plenty of water.

Remove contaminated clothing.

Get medical attention. Wash clothing before reuse.

If inhaled:

If symptoms occur, remove to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult give oxygen,

Remove material from eyes, skin and clothing.

If swallowed:

Immediate first aid is not likely to be required.

A physician or Poison Control Center can be contacted for advice.

Wash heavily contaminated clothing before reuse.

5. FIRE FIGHTING MEASURES

Upper explosion limit:

1.5 %(V)

Lower explosion limit:

0.8 %(V)

Hazardous products of combustion:

carbon monoxide (CO); carbon dioxide; hydrocarbons; smoke; soot

Product name: DIPHENYL OXIDE Solutia Inc. Material Safety Data Sheet Reference Number: 00000000127

Page 3 / 7 Date: 05/18/2005 Version 5.2/E

Extinguishing media:

Water spray, foam, dry chemical, or carbon dioxide

Unusual fire and explosion hazards:

Combustible solid

Decomposes in a fire giving off toxic fumes.

Fire lighting equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus.

Equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Use personal protection recommended in section 8.

Environmental

Keep out of drains and water courses.

precautions:

Methods for cleaning up: Allow to solidify. Sweep up into containers for disposal.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information,

7. HANDLING AND STORAGE

Handling

Avoid contact with eyes, skin and clothing.

Avoid breathing dust.

Avoid breathing vapour or mist.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

Emptied containers retain vapour and product residue. Observe all recommended safety precautions until container is cleaned, reconditioned or destroyed. The reuse of this material's container for non industrial purposes is prohibited and any reuse must be in consideration of the data provided in this material safety data sheet.

Storage

General:

Stable under normal conditions of handling and storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne exposure limits: (m

(ml/m3 = ppm)

diphenyl ether

ACGIH TLV: 1 ml/m3;; 8-hr TWA
ACGIH TLV: 2 ml/m3;; 15-min STEL
OSHA PEL: 1 ml/m3; 7 mg/m3;; 8-hr TWA
Mexican OEL: 1 ml/m3; 7 mg/m3;; 8-hr TWA
Mexican OEL: 2 ml/m3; 14 mg/m3;; 15-min STEL

Eye protection:

Wear chemical goggles.

Have eye flushing equipment available.

Hand protection:

Wear chemical resistant gloves.

Consult the glove/clothing manufacturer to determine the appropriate type

glove/clothing for a given application.

Body protection:

Wear suitable protective clothing.

Product name: DIPHENYI, OXIDE Solutia Inc. Material Safety Data Sheet Reference Number: 000000000127

Page 4 / 7 Date: 05/18/2005 Version 5.2/E

Consult the glove/clothing manufacturer to determine the appropriate type

glove/clothing for a given application.

Wear full protective clothing if exposed to splashes.

Wash contaminated skin promptly.

Launder contaminated clothing and clean protective equipment before reuse.

Wash thoroughly after handling.

Respiratory protection: Avoid breathing vapour or mist.

Use approved respiratory protection equipment (full facepiece recommended) when

airborne exposure limits are exceeded.

If used, full facepiece replaces the need for face shield and/or chemical goggles. Consult the respirator manufacturer to determine the appropriate type of equipment for

a given application.

Observe respirator use limitations specified by the manufacturer.

Ventilation:

Provide natural or mechanical ventilation to control exposure levels below airborne

exposure limits.

If practical, use local mechanical exhaust ventilation at sources of air contamination

such as processing equipment.

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point:

115 C

Cleveland Open Cup

Autoignition temperature:

617 C

ASTM D-2155

Density:

1.07 g/cm3

Boiling point:

5

258 C @ 1,013 hPa 26 C

Melting point: Water solubility:

14 mg/l @ 25 C

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

Conditions to avoid:

None known

Materials to avoid:

Contact with strong oxidizing agents.

Hazardous reactions:

Hazardous polymerization does not occur.

Hazardous decomposition

carbon dioxide; carbon monoxide (CO); hydrocarbons; smoke; soot

products:

11. TOXICOLOGICAL INFORMATION

Product name: DIPHENYL OXIDE Solutia Inc. Material Safety Data Shoot Reference Number: 000000000127

Page 5 / 7 Date: 05/18/2005 Version 5.2/E

This product has been tested for toxicity. Results from Solutia sponsored studies or from the available public literature are described below.

Acute animal toxicity data

Oral:

LD50, rat, 2,450 mg/kg, Slightly toxic following oral administration.

Dermal:

1.D50, rabbit, 7,940 mg/kg, Practically nontoxic after skin application in animal

studies.

Eye irritation:

rabbit, Slightly irritating to eyes (rabbit),

Skin irritation:

rabbit, Slightly irritating to skin (rabbit)., 4.00 h

Skin sensitization:

, Predictive patch testing on human volunteers did not produce dermal

sensitization.

Repeat dose toxicity:

rat & rabbit, inhalation, ,

Repeated exposure produced respiratory tract irritation in animal models.

Repeated exposure produced eye irritation in animal models.

Repeat dose toxicity

dog, inhalation, ,

No adverse effects reported in repeat dose studies.

Mutagenicity:

No genetic effects were observed in standard tests using bacterial and animal cells.

12. ECOLOGICAL INFORMATION

Environmental Toxicity

Invertebrates

48 h, EC50 Water flea (Daphnia magna) 1.7 mg/l

l'ish:

96 h, LC50 Rainbow trout (Oncorhynchus mykiss) 4.2 mg/l

96 h, LC50 Fathead minnow (Pimephales promelas) 13 mg/l

Algae:

96 h, EC50 Algae (Scienastrum capricornutum) 2.5 mg/l

Environmental fate

Biodegradation

Modified SCAS (OECD 302A) 94 % 24 h

Inherently biodegradable.

Partitioning coefficient

-- 16,000

(octanol/water):

Bioconcentration factor

120

(BCF):

13. DISPOSAL CONSIDERATIONS

US EPA RCRA Status:

This material when discarded is not a hazardous waste as that term is defined by the

Resource, Conservation and Recovery Act (RCRA), 40 CFR 261.

Product name: DIPHENYL OXIDE Solutia Inc. Material Safety Data Sheet Reference Number: 000000000127

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Disposal considerations:

Incineration

Recycle

Miscellaneous advice:

Local, state, provincial, and national disposal regulations may be more or less stringent.

Consult your attorney or appropriate regulatory officials for information on such

disposal.

This product should not be dumped, spilled, prised or washed into sewers or public

waterways.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

US DOT

Other:

Not regulated for transport.

Canadian TDG

Other:

Not regulated for transport.

15. REGULATORY INFORMATION

All components are in compliance with the following inventories: U.S. TSCA, EU EINECS, Canadian DSL, Australian AICS, Korean,

Japanese ENCS, Phillipine PICCS, Chinese

Canadian WHMIS classification:

D2(B) - Materials Causing Other Toxic Effects

SARA Hazard Notification:

Hazard Categories Under Title III

Rules (40 CFR 370):

Immediate

Section 302 Extremely Hazardous

Substances:

Not applicable

Section 313 Toxic Chemical(s):

Not applicable

CERCLA Reportable Quantity;

Not applicable

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation and the MSDS contains all the information required by the Canadian Controlled Products Regulation.

Refer to Section 11 for OSHA/HPA Hazardous Chemical(s) and Section 13 for RCRA classification,

Safety data sheet also created in accordance with Brazilian law NBR 14725

16. OTHER INFORMATION

Product name: DIPHENYL OXIDE Solutia Inc. Material Safety Data Sheet Reference Number: 000000000127

Page 7/7 Date: 05/18/2005 Version 5.2/E

Product use:

Intermediates. Heat transferring agents

Reason for revision:

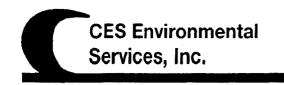
Significant changes to the following section(s):, Section 11

	Health	Fire	Reactivity	Additional Information	-
Suggested NFPA Rating	2	1	0		
Suggested HMIS Rating:	2	-1	0	G	Reservice .

Prepared by the Solutia Hazard Communication Group. Please consult Solutia @ 314-674-6661 if further information is needed.

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SOLUTIA is a trademark of Solutia Inc.
Responsible Care® is a registered trademark of the American Chemistry Council.

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4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

- Waste Pre-Acceptance/Approval Letter -

Date 12/27/2006

Dear John Kilgore

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1982

Generator: Hobas Pipe

Address: 1413 Richey Road

Houston, TX 77073

Waste Information

Name of Waste: Non-RCRA, nonhzardous wastewater

TCEQ Waste Code #: 00062191

Container Type:

vac box

Detailed Description of Process Generating Waste:

Water used to cool down synthetic pipe molds.

Color: varies

Odor: none

pH: 4-8

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Standard PPE

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



4904 Griggs Road Phone: (713) 676-1460

riggs Road Houston, TX 77021 (713) 676-1460 Fax: (713) 676-1676 http://www.cesenvironmental.com

#1982

TCEQ Industrial Solid Waste Permit No: 39048 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Genera	ator Information				
Company:	Hobas Pipe				
Address:	1413 Richey Rd	-		·	
City, State, Zip:	Houston, TX 7707	3			
Contact:	John Kilgore		Title:	Maintenance Manager	00
Phone No:	281-813-8449		Fax No:	281-821-9781	<i>p</i> '
24/hr Phone:	281-813-8449		-		
U.S. EPA I.D. No:	TXD987973047			Λ.	
State I.D.	20236		SIC Code:	NA	
			_	7 ()	
SECTION 2: Billing	Information D	Came as A baye			
	INTOLDISTION - M.	Same as Above			
Company:					
Address:					
City, State, Zip:		77.1			
Contact:		Title:			
Phone No:		Fax No:			
SECTION 3: Genera	al Description of the	e Waste			
Name of Waste: Non	-RCRA-Non-Hazard	dous Waste Water			
Detailed Description	of Process Generat	ing Waste: Water used to co	ool down synthet	ic pipe molds.	KI.
•		_			##
Physical State:			Powder		,,
	Solid		Combination		
	Solice		_ Companion	•	
Calam Varias		Ddow None			
Color: Varies		Odor: None			'
					4
Specific Gravity (wat	ter=1): <u>.9-1</u>	Density: 8-9 lbs/gal			/
Layers:	Single-phase	Multi-phase			
**************************************	one and an end of the company of th				
Cautainan T		□ Tota ▽	Truck	Other (explain)	
	- [-] - Ya.ñ.ii	Note			
Container Size:			<u>5-6000</u>	<u>Vac Box</u>	
Eragnangu	Maakly	Monthly	Quarterly	⊠ Vearly	
			" Walitie ?	🗠 . 🕰 . 🕰	-
Number of Units (cor	,	Other:		•	١.,
Texas State Waste Co	ode No: 00	062191			,,
Proper U.S. DOT Shi	inning Name:	Non-RCRA, Non-DO	T Regulated Wa	ste Water	
Troper C.S. DOI SH	thhmg mame.	Holekeler, Holebo		ste water	
Class: Na	UN/N	A: Na	PG: Na	RQ: Na	
					
Flash Point	pН	Reactive Sulfides	Reactive Cy	anides Solids	
>160	4-8	Omg/I	Omg/I	0-25%	
	4-0		1 01112/1	<u> </u>	
Oil&Grease					
Oil&Grease >6250mg/l	TOC Lab_mg/l	Zinc Labmg/i	Copper Labmg/l	Nickel Labmg/l	

bede 3

\$9988\$LETL

DEC 56,2006 03:052

SECTION 4: Physical and Chemical Data				
COMPONENTS TABLE	Concentration	Laits		
The waste consists of the following materials	Ranges are acceptable	or %		
Water	1-5	1%		
Solds and Sludge from Synthetic Molds	0-35	1 %		
Solds and Sludge from Synthetic Mode	u-30	70		
		 		_
		-		
				-
SECTIONS: Sufery Related Data	7			
If the handling of this waste requires the use of special protective equ	inment deus evoluis			-
None Standard PPE				د.
		•		
SECTION 6: Attached Supporting Documents				
List all documents, notes, data, and/or analysis attached to this form	vê Balt of îpt mârjt abblokaj batka	ge	Formotted	
TCLF Analysis				
SECTION 7: Incompatibilities				
Please list all incompatibilities (if any):			Formatted	
None	***		Tothacets	
SECTION 8: Generator's Knowledge Documentation				•
SEL LACTOR & Generator's Knowledge December 1998				
Laboratory analysis of the hazardous waste characteristics, listed bele- generator knowledge:	ow, WAS NOT PERFORMED base	d upon the following		
TCLP Metals:	·			
TCLP Volatiles:	· ·			
TCLP Semi-Volatiles:				
Reactivity:				
Ignitubility:	•			
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SECTION 9: Generator's Certification	_			
The information contained herein is based on \(\overline{\infty} \) generator knowledge at attached description is complete and accurate to the best of my knowledge.	d/or 🔯 analytical data. Thereby cor	nify that the above and		
omissions of composition properties exist and that all known or suspect	ed hazards have been disclosed. I ce	o deliberate of William		
omissions of composition properties exist and that all known or suspects tested are representative of all materials described by this deciment		inty tome ore indicated	4	
Authorized Signature:	Av 12 mama			
Authorized Signature;	Date: 12/26/08		Formatted	
Printed Name/Title: John Kilgory Maintenance Manager	*** * * * * * * * * * * * * * * * * * *	***	Pormatted	
_			Formblind	
CES USE ONLY (DO NOT WHETE IN THIS SPACE)			Formatted	
Compliance Officer Buly can the Addi	tional Information:			
	V			
Dino: 12-27-06 Approved Rejected	<u> </u>			
Approved Number: 1982		ļ .		
Approved Nutrined.				
SECTION 10: Waste Receipt Classification Under 46 CFR 437				
· · · · · · · · · · · · · · · · · · ·				
In this material a wastewater or wastewater sludge? YES NO)			
. 2	•			
^				
	,			

PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.

wera	s Subcategory: Subpart A
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury — Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment
Ons a	uocinegori. Saopan D
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes
Orga	nics Subcategory: Subpart C
	Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources

- (1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
- (2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

Copper: 4.9 mg/L
Nickel: 37.5 mg/L

(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.

| Metals Subcategory
| Oils Subcategory
| Organics Subcategory

SECTION 11: Additional Instructions

Cadmium: 0.2 mg/L Chromium: 8.9 mg/L

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



ENVIRON EXPRESS LABORATORIES, INC.

401 N. 11th. St. La Porte, TX 77571 281.471.0951 FAX:281.471.5821

CERTIFICATE OF ANALYSIS NO:

61348.01

1of 1

Customer: CES Env. Svcs: Project ID: Hobas Pipe

Sample ID: Process Wash Water/Cooling Water Environ ID: 61348.01 Sampled: 12-21-06

Project Loc: Hou., TX Charge/P.O.:

Matrix: Water Type: Composite Received: 12-21-06

Reported: 12-22-06

RECEIVED BASIS										
ANALYTE /	R	ESULT	UNITS	REG.	MQL	TEST	ANALYST	DATE	TIME	
PARAMETER		,	L	LIMIT	<u> </u>	METHOD			<u> </u>	
TOT. PET. HYDROCARBO	1						f		1	
GRO (Gasoline Range)	<	491	mg/kg		50	TCEQ 1005.03	DB	12-22-06	15:51	
DRO (Diesel Range)		1,980	mg/kg	-	50	TCEQ 1005.03	DB ·	12-22-06	15:51	
ORO (Oil Range)		4,270	mg/kg		50	TCEQ 1005.03	DB	12-22-06	15:51	
TOTAL TPH		6,250	mg/kg		50					
METALS (RCRA) - TCLP	l	•	1	1		SW846.1311	MN	12-21-06	1	
Arsenic	<	0.02	mg/l	5.00	0.02	SW846.6010B	JK	12-22-06	15:57	
Barium		2.30	mg/l	100	0.02	SW846.6010B	JK	12-22-06	15:57	
Cadmium	<	0.02	mg/l	1.00	0.02	SW846.6010B	JK	12-22-06	15:57	
Chromium	<	0.02	mg/l	5.00	0.02	SW846.6010B	JK	12-22-06	15:57	
Lead	<	0.02	mg/l	5.00	0.015	SW846.6010B	JK	12-22-06	15:57	
Selenium	<	0.05	mg/l	1.00	0.05	SW846.6010B	JK	12-22-06	15:57	
Silver	< .	0.50	mg/l	5.00	0.5	SW846.6010B	JK	12-22-06	15:57	
Mercury	<	0.002	mg/l	0.200	0.002	SW846.7470A	MN	12-22-06	10:30	
RCI										
Reactive Cyanide	<	50	mg/kg	250	50	EPA SW846.7.3.3	LC	12-22-06	09:50	
Reactive Sulfide	<	50	mg/kg	500	50	EPA SW846.7.3.4	LC	12-22-06	09:40	
Corrosivity (Ph)		7.28	su	=>2; =<12.5	-	EPA SW846.9045C	JA	12-22-06	13:15	
Ignitability	>	160	°F	> 140		EPA SW846.1010	LC	12-22-06	11:15	
VOC - TCLP (Dilution Fact	or: 10.			1	ţ	SW846.1311	MN	12-21-06	, , , , ,	
Benzene	<	0.04	mg/l	0.5	0.040	SW846.8260B	JAC	12-22-06	13:40	
2-Butanone (MEK)		0.16	mg/l	200.0	0.100	SW846.8260B	JAC	12-22-06	13:40	
Carbon tetrachloride	<	0.04	mg/l	0.5	0.040	SW846.8260B	JAC	12-22-06	13:40	
Chlorobenzene	<	0.04	mg/l	100	0.040	SW846.8260B	JAC	12-22-06	13:40	
Chloroform (Trichloromethal	<	0.04	mg/l	6.0	0.040	SW846.8260B	JAC	12-22-06	13:40	
1,2-Dichloroethane (EDC)	<	0.04	mg/l	0.5	0.040	SW846.8260B	JAC	12-22-06	13:40	
1,1-Dichloroethene	<	0.04	mg/l	0.7	0.040	SW846.8260B	JAC	12-22-06	13:40	
Tetrachloroethene	<	0.04	mg/l	0.7	0.040	SW846.8260B	JAC	12-22-06	13:40	
Trichloroethene	<	0.04	mg/l	0.5	0.040	SW846.8260B	JAC	12-22-06	13:40	
Vinyl chloride	<	0.04	mg/l	0.2	0.040	SW846.8260B	JAC	12-22-06	13:40	
SVOC - TCLF (Conc. Factor	r: 200)		1			SW846.1311	MN	12-21-06		
1,4-Dichlorobenzene	<	0.05	mg/i	7.5	0.05	SW846.8270C	JAC	12-22-06	14:53	
2,4-Dinitrotoluene	<	0.05	mg/l	0.13	0.05	SW846.8270C	JAC	12-22-06	14:53	
Hexachlorobenzene	<	0.05	mg/l	0.13	0.05	SW846.8270C	JAC	12-22-06	14:53	
Hexachlorobutadiene	<	0.05	mg/l	0.50	0.05	SW846.8270C	JAC	12-22-06	14:53	
Hexachloroethane	<	0.05	mg/l	3.0	0.05	SW846.8270C	JAC	12-22-06	14:53	
2-Methylphenol (o-Cresol)	<	0.05	mg/l	(200)	0.05	SW846.8270C	JAC	12-22-06	14:53	
3&4-Methylphenol (m&p-Cre	<	0.05	mg/l	(o+m+p)	0.05	SW846.8270C	JAC	12-22-06	14:53	
Nitrobenzene	<	0.05	mg/l	2.0	0.05	SW846.8270C	JAC	12-22-06	14:53	
Pentachlorophenol	<	0.25	mg/l	100	0.25	SW846.8270C	JAC	12-22-06	14:53	
Pyridine	<	0.20	mg/l	5.0	0.20	SW846.8270C	JAC	12-22-06	14:53	
2,4,5-Trichlorophenol	<	0.05	mg/l	400	0.05	SW846.8270C	JAC	12-22-06	14:53	
2,4,6-Trichlorophenol	<	0.05	mg/l	2.0	0.05	SW846.8270C	JAC	12-22-06	14:53	
				L		<u> </u>				
	QL		ITROL TCLP		OGATE R					
SURROGATE		<u>_</u>	RESULTS (mg/	1)		% RECOVERY	·	RANGE		
1,2-Dichloroethane-d4 (SS)			0.051	į		102	ł	76-11		
Toluene-d8 (SS)			0.053 0.053	ļ		106	Į.	80-12		
4-Bromofluorobenzene (SS)	OII	ALITY CON	TROL TCLP	SVOC SURE	OGATE R	106 PECOVERIES		80-12	·	
SURROGATE			RESULTS (mg/			% RECOVERY		RANGE	%	
Nitrobenzene-d5			0.043			86		35-11		
2-Fluorobiphenyl			0.048]		96	}	43-11		
Terphenyl-d14			0.053	J		106	ļ	33-14	- 1	
Phenol-d5			0.041			41		21-10		
2-Fluorophenol			0.052			52	-	10-10		
2,4,6-Tribromophenol		·	0.087			87		10-12		

Definitions:

TCLP - Toxcisity Charasteric Leaching Procedure su - Standard Units

REG - Regulatory Limit (User Should Confirm Lin VOC - Votatile Organic Compounds

MQL - Method Quanitation Limit

PPM - Parts Per Million

SVOC - Semivolatile Organic Compounds TPH - Total petroleum Hydrocarbons

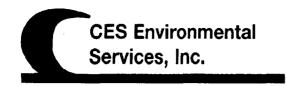
mg/l - PPM by Volume, mg/kg - PPM by Weight

Page 1 of 1

John Keller, Ph.D. Laboratory Director

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Express Laboratories	Page of	CES								- (~ .									_Yes.	No
		Address: 4904 Gr	965	: R4				Addre	ess:									Shipment (Yes)		Samples S	
401 North 11th.	RESS LABORATORIES, INC. St. / La Porte, Texas 77571-3115	City out on		State:		Zip:	,	City: State: Zip:								Received (Yes.)		Samples I	ntact?		
(281) 471-0951 /	(800) 880-0156	Phone: 7/3-3	54-	615	ं			Phone	e:	7								Cooler Te	no. (°C)	Preservati	ve Shown?
e-mail: environe:	821 / After Hours: (281) 844-2308 φ@aol.com	Fax: 7/3-0	<u>076</u>	-16	7 (<u></u>		Fax: PO#:		3		I	Quote	#:				テ " Hold <u>Ti</u> me		Yes (Ñ Res. Cl2 (
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Project Location:			Volum		30:	.2.						-+	\dashv			+-		pH Check	OK?	COC & La	bels Agree?
Project No:			³ Prese	rvative	1					ГОТА			\dashv		1	1			Remarks & A	dditional Ana	lyses
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Sampler (Print):	Sowanian		ĺ	(C)OMP / (G)RAB	<u></u>	5.3)					ALS.										
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EEL USE ONLY	SAMPLE ID.	DATE/TIME	MATRIX	WQ.	BTEX (8021B)	TPH (TX1005.3)	_	ı	VOLATILES	SEMI-VOLS	RCRA 8		ļ	ĺ							2
(LAB NO.)	1) Process were rown	SAMPLED		<u> </u>	B	욘	BCI	РАН		SE	R				_	4-	4				5
	Cooles Water	11 00 Pm	W	C		\times	X		X	X	X				$oldsymbol{\perp}$			_			
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					<u></u>	¹ Ma	atrix	Key		<u></u>											
	S:Soil W:Water WW:Waste Water S Container Ty		SE:Sed	iment I	_: Lea	chate	WI:V	Vipe	OR:	Organ	c OL	:Oil C)S :Dr					O:Other_ Key			
	P:Plastic G:Glass V:VOA Glass O:	Other	oo Cob -	dula			<u> </u>		1 :lo	e(<4°	C) 2 :	HCL 3	:H2S	О4 4 :Н	ЮОЗ	5 :NaC	он 6 :	NaOH+Zn A	cetate 7:Na2	2S2O3 8: No	ne



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/5/2007

Dear Ed Wickham

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1983

Generator: Miller Transporters

Address: PO Box 386

Channelview, TX 77530

Waste Information

Name of Waste: Waste sludge TCEQ Waste Code #: 00136091

Container Type:

Detailed Description of Process Generating Waste:

Sludge from pits grating and oil water separator that handles wastewater from cleaning of RCRA empty containers.

Color: dark

Odor: none

pH: 4-9

Physical State:

Incompatibilities: none known

Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



4904 Griggs Road Phone: (713) 676-1460

Fax: 281-457-6028

Houston, TX 77021

Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 309 ISWR No: 30900

SECTION 1: Gene				
Company:	Miller Transporter			
Address:	15885 Wood Drive			
City, State, Zip:	Channelview, TX	77530		
Contact:	Ed Wickham		Title:	Washrack Manager
Phone No:	281-457-6348		Fax No:	281-457-6028
24/hr Phone:	800-238-6326			
U.S. EPA I.D. No:	TXD981053325			. <i>A</i>
State I.D.	40614		SIC Code:	
	g Information – 🛛 S	ame as Above		
Company:		····		
Address:				
City, State, Zip:				
Contact:		Title:	•	
Phone No:		Fax No:		
_			,	
SECTION 3: Gener	ral Description of the	Waste		,
Name of Waste: Waste: Waste: Waste: Cleaning of RCRA en	of Process Generat	ing Waste: <u>Sludge from</u> j	pits grating and o	il water separator that handle wastewater from
Physical State:	Liquid	⊠ Sludge	☐ Powder	
I Mysical States	<u></u>		-	_
	Solid	Filter Cake	☐ Combinatio	n.
Color: <u>Dark</u>	Ç	dor: <u>None</u>	•	
Specific Gravity (wa	ater=1): <u>1.2-1.5</u>	Density: 9 lbs/gal		
Layers:	Single-phase	Multi-phase		
5	□ B	☐ Tote	⊠ Truck	Other (explain)
Container Type:	∐ Drum	□ rote		
Container Size:			5000 gal	
Frequency:	☐ Weekly	☐ Monthly	Quarterly	☐ Yearly
				_
Number of Units (co		Other:		
Texas State Waste	Code No: 00	136091		·
Proper U.S. DOT S	hipping Name:	Non RCRA/Non D	OT Reglated Mat	crial
Class: NA	UN/N	A: NA	PG: N	A RQ: NA
Flash Point	рН	Reactive Sulfides	Reactive	
>200	4-9	NAmg/1	NAmg/I	30-60%
Oil&Grease	TOC	Zinc	Copper	Nickel
CHOCG CARE	>1600ma/	NAmir/I	NAme/I	NAmg/I

SECTION 4: Physical and Chemical Data

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The waste consists of the following materials	Ranges are acceptable		
Water	60-70	%	
Sand/Dirt/Grit	30-40	%	
Hydraulic Oil	2-3	%	
Waxes/Grease/Fatty Acids	1-2	%	
	·		

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. Standard PPE

Fax: 281-457-6028.

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. **None**

SECTION 7: Incompatibilities

Please list all incompatibilities (if any): None Known

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals:

TCLP Metals are below regulatory limits

TCLP Volatiles:

TCLP Volatiles are below regulatory limits TCLP Semi-Volatiles are below regulatory limits

TCLP Semi-Volatiles: Reactivity:

no reactive material in waste

Corrosivity:

pH is neutral

Ignitability:

no flammable materials in waste

SECTION 9; Generator's Certification

The information contained herein is based on 🔀 generator knowledge and/or 🗌 analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Date: 1-2-07 Authorized Signature:

Printed Name/Title: Ed Wickham/Washrack Manager

CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer: Labhardha	Process Facility Information:
Date: 1-3-67 (Approved) Rejected	OSL
Approval Number: 1983	

<u>S1</u>	CCTION 10: Waste Receipt Classification Under 40 CFR 4	<u>:37</u>		
Is	this material a wastewater or wastewater sludge? 🗵 YES	□ NO		:
If	'Yes', complete this section.			
Pl	LEASE CHECK THE APPROPRIATE BOX. IF NO APPRO	PRIATE CATEGOR	Y, GO TO THE	NEXT PAGE
Meta	uls Subcategory: Subpart A			
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions			÷
	Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from ele Vibratory deburring wastewater		ating operations	1
	Alkaline and acid solutions used to clean metal parts or equi	pmeat		·
<u>Ous</u>	Subcategory: Subpart B			
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources	\$		
	Non-contact used glycols		·	
	Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes			,
<u>Orga</u>	nics Subcategory: Subpart C		:	•
	Landfill leachate Contaminated groundwater clean-up from non-petroleum so Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations	nurces		
$\overline{\boxtimes}$	Tank clean-out from organic, non-petroleum sources			

- (1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
- (2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory.

Cadmium: 0.2 mg/L Chromium: 8.9 mg/L Copper: 4.9 mg/L Nickel: 37.5 mg/L

(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.

Metals Subcategory

Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



USA ENVIRONMENT

Miller Transporter

Analysis:

RunID:

Analysis Date:

Preparation Date:

TCLP Semivolatile Organics

Method:

SW8270C

P_030305A-1539622

03/05/2003 21:19

03/04/2003 11:20

Method Blank

Units:

Prep By:

ug/L

GQ Analyst:

KL

Method SW3510C

Lab Sample ID 03030047-01C

03030047-02A

Samples in Analytical Batch:

Client Sample ID Influent Wastewater

03030047

26036

Pit Sludge

WorkOrder:

Lab Batch ID:

Analyte	Result	Rep Limit
1,4-Dichlorobenzene	ND	5.0
2,4,5-Trichlorophenol	ND	10
2,4,6-Trichlorophenol	ND.	5.0
2,4-Dinitrotoluene	ND	5.0
Hexachlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Hexachioroethane	ND	5.0
Nitrobenzene	ND ND	5.0
Pentachlorophenol	ND	25
Pyridine	ND	5.0
2-Methylphenol	ND	5.0
3 & 4-Methylphenol	ND	5.0
Surr: 2,4,6-Tribromophenol	50.7	10-123
Surr: 2-Fluorobiphenyl	64.0	43-116
Surr: 2-Fluorophenol	53.3	21-110
Surr: Nitrobenzene-d5	52.0	35-114
Surr: Phenol-d5	56.0	10-110
Surr: Terphenyl-d14	78.0	33-141

Leachate Blank

RunID:

P_030305A-1539623

Units:

ug/L

Preparation Date:

03/05/2003 21:49 03/04/2003 11:20

GQ Analyst:

Prep By: KL

Leach By: LM

Method SW3510C

Leach Date:

Analysis Date:

03/03/2003 10:03

Method SW1311

Analyte	Result	Rep Limit
1,4-Dichlorobenzene	ND	50
2,4,5-Trichlorophenol	ND	100
2,4,6-Trichlorophenol	ND	50
2,4-Dinitrotoluene	ND	50
Hexachlorobenzene	ND	· 50
Hexachlorobutadiene	ND	50
Hexachloroethane	ND	50
Nitrobenzene	ND	50
Pentachlorophenol	ND	250
Pyridine	ND	50
2-Methylphenol	ND	50
3 & 4-Methylphenol	ND	50

Laboratory Control Sample (LCS)

RunID:

P_030305A-1539624

Units: ug/L

Analysis Date:

03/05/2003 22:19

GQ Analyst:

Preparation Date:

03/04/2003 11:20

Prep By: KL

Method SW3510C

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

3/11/2003 7:57:04 AM



USA ENVIRONMENT

Miller Transporter

Analysis: Method:

TCLP Semivolatile Organics

SW8270C

WorkOrder:

03030047

Lab Batch ID: 26036

Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit		
250	120	48	30	150		
250	120	48	30	150		
250	130	52	30	150		
250	130	52	30	150		
250	140	56	20	150		
250	150	60	20	140		
250	120	48	30	140		
250	120	48	20	160		
250	85	34	14	176		
250	110	44	1	150		
250	120	48	30	160		
. 500	120	24	10	160		
	Added 250 250 250 250 250 250 250 250 250 25	Added 250 120 250 130 250 130 250 130 250 140 250 150 250 120 250 120 250 85 250 110 250 120	Added Recovery 250 120 48 250 120 48 250 130 52 250 130 52 250 140 56 250 150 60 250 120 48 250 120 48 250 85 34 250 110 44 250 120 48	Added Recovery Limit 250 120 48 30 250 120 48 30 250 130 52 30 250 130 52 30 250 140 56 20 250 150 60 20 250 120 48 30 250 120 48 20 250 85 34 14 250 110 44 1 250 120 48 30		

Matrix Spike (MS)

Sample Spiked:

03030005-03

RuniD:

P_030305A-1539626

Units: ug/L

Analysis Date:

03/05/2003 23:19

Analyst: GQ

Preparation Date: 03/04/2003 11:20 Prep By: KL Method SW3510C

Analyte	Sample Result	Spike Added	MS Result	MS % Recovery	Low Limit	High Limit
1,4-Dichlorobenzene	ND	250	170	68	30	150
2,4,5-Trichlorophenol	ND	250	210	84	30	150
2,4,6-Trichlorophenol	ND	250	200	80	30	150
2,4-Dinitrotoluene	ND	250	220	88	30	150
Hexachlorobenzene	ND	250	210	84	20	150
Hexachlorobutadiene	" ND	250	210	84	20	140
Hexachloroethane	ND	250	170	68	30	140
Nitrobenzene	· ND	250	190	76	20	160
Pentachlorophenol	ND	250	190	76	14	176
Pyridine	ND	250	100	40	1	150
2-Methylphenol	ND	250	190	76	30	160
3 & 4-Methylphenol	ND	500	190	38	10	160

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

3/11/2003 7:57:04 AM



03/20/03 0:37

EG

			·
Client Sample ID Pit Sludge	Collected: 03/03/2003 10:55	SPL Sample ID:	03030688-02

			Site	: Cha	annelview, TX			
Analyses/Method	•	Result	Rep.Limit	MCL	Dil. Factor QUAL	Date Analyzed	Analyst	Seq. #
TCLP MERCURY				MCL	SW7470A	Units: m	g/L	
Mercury		ND	0.0002	0.2	1	03/24/03 13:24	MW	1574684
Prep Method	Prep Date		Prep Initials					
SW7470A	03/24/2003 9:0	00	MW					
TCLP METALS BY I	METHOD 6010B			MCL	SW6010B	Uņits: m	g/L	
Arsenic		ND	0.2	5	2	03/20/03 0:37	EG	1565916
Barium		ND	1	100	2	03/20/03 0:37	EG	1565916
Cadmium		ND	0.01	1	2	03/20/03 0:37	EG	1565916
Chromium		ND	0.02	5	2	03/20/03 0:37	EG	1565916
Lead		ND	0.1	5	2	03/20/03 0:37	EG	1565916
Selenium		ND	0.2	1	2	03/20/03 0:37	EG	1565916

0.02

Prep Method	Prep Date	Prep Initials
SW3010A	03/17/2003 10:00	MW

ND

Qualifiers:

Silver

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable des (15)

MI - Matrix Interferent

1565916



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

Client Sample ID Pit Sludge	Collected: 0	03/03/2003 10:55	SPL Sample ID:	03030047-02

			S	ite: Cha	annelview, TX			·····
Analyses/Method	Result		Rep.Limit		Dil. Factor QUAL	. Date Analyzed	Analyst	Seq. #
CORROSIVITY				MCL	SW9045C	Units: pl	H Units	
Corrosivity	5.5		0		1	03/03/03 18:00	LM	1535438
IGNITABILITY MODIFIED OPEN	CUP			MCL	ASTM D92-01	Units: °F	•	
Ignitability	180		20		1	03/08/03 21:30	DP	1544159
REACTIVE CYANIDE-SOLID				MCL	SW7.3.3.2	Units: m	g/Kg	
Reactive Cyanide	ND		1		1	03/09/03 21:00	E_S	1544113
REACTIVE SULFIDE - SOLID				MCL	SW7.3.4.2	Units: m	g/Kg	
Reactive Sulfide	ND		10		1	03/09/03 19:00		1544091
TCLP SEMIVOLATILE ORGANIC	S			MCL	SW8270C	Units: u	a/L	
1,4-Dichlorobenzene	ND		50	7500	10	03/06/03 0:48	GQ	1541839
2,4,5-Trichlorophenol	ND		100	400000	10	03/06/03 0:48	GQ	1541839
2,4,6-Trichlorophenol	ND		50	2000	10	03/06/03 0:48	GQ	1541839
2,4-Dinitrotoluene	ND	y	50	130	10	03/06/03 0:48	GQ	1541839
Hexachlorobenzene	ND		50	130	10	03/06/03 0:48	GQ	1541839
Hexachlorobutadiene	ND		50	500	10	03/06/03 0:48	GQ	1541839
Hexachloroethane	ND		50	3000	10	03/06/03 0:48	GQ	1541839
Nitrobenzene	ND		50	2000	10	03/06/03 0:48	GQ	1541839
Pentachlorophenol	ND		250	100000	10	03/06/03 0:48	GQ	1541839
Pyridine	ND		50	5000	10	03/06/03 0:48	GQ	1541839
2-Methylphenol	430		50	200000	10	03/06/03 0:48	GQ	1541839
3 & 4-Methylphenol	ND		50	400000	10	03/06/03 0:48	GQ	1541839
Surr: 2,4,6-Tribromophenol	49.3	%	10-123		10	03/06/03 0:48	GQ	1541839
Surr: 2-Fluorobiphenyl	44.0	%	43-116		10	03/06/03 0:48	GQ	1541839
Surr: 2-Fluorophenol	53.3	%	21-110		10	03/06/03 0:48	GQ	1541839
Surr: Nitrobenzene-d5	60.0	%	35-114		10	03/06/03 0:48	GQ	1541839
Surr: Phenol-d5	53.3	%	10-110		10	03/06/03 0:48	GQ	1541839
Surr: Terphenyl-d14	34.0	%	33-141		10	03/06/03 0:48	GQ	1541839

Prep Method	Prep Date	Prep Initials	Leach Method	Leachate Date	Leach Initials
SW3510C		KL .	SW1311	03/03/2003 10:03	LM

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

3/11/2003 7:56:56 AM



Client Sample ID Pit Sludge

Collected: 03/03/2003 10:55

SPL Sample ID:

03030047-02

Site: Channelview, TX

Analyses/Method	Result		Rep.Limit	MCL	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
TCLP VOLATILE ORGANICS				MCL	SW8	260B	Units: uç	g/L	
1,1-Dichloroethene	78		50	700	10		03/06/03 16:50	LT	1541010
1,2-Dichloroethane	ND		50	500	10		03/06/03 16:50	LT	1541010
2-Butanone	ND		200	200000	10		03/06/03 16:50	LT	1541010
Benzene	ND		50	500	10		03/06/03 16:50	LT	1541010
Carbon tetrachloride	ND		50	500	10		03/06/03 16:50	LT	1541010
Chlorobenzene	ND		50	100000	10		03/06/03 16:50	LT	1541010
Chloroform	ND		50	6000	10		03/06/03 16:50	LT	1541010
Tetrachloroethene	ND		50	700	10		03/06/03 16:50	LT	1541010
Trichloroethene	ND		50	500	10		03/06/03 16:50	LT	1541010
Vinyl chloride	ND		100	200	10		03/06/03 16:50	LT	1541010
Surr: 1,2-Dichloroethane-d4	92.0	%	62-130		10		03/06/03 16:50	LT	1541010
Surr: 4-Bromofluorobenzene	100	%	70-130		10		03/06/03 16:50	LT	1541010
Surr: Toluene-d8	94.0	%	74-122		10		03/06/03 16:50	LT	1541010

Leach Method	Leachate Date	Leach Initials	
SW1311	03/03/2003 10:02	LM	

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

3/11/2003 7:56:56 AM



USA ENVIRONMENT

Miller Transporter

Analysis:

RunID:

TCLP Volatile Organics

Method: SW8260B

WorkOrder:

03030047

Lab Batch ID:

R79154

Method Blank

L_030306B-1541003

Units:

Lab Sample ID

Client Sample ID

Analysis Date:

03/06/2003 11:49

Analyst: LT

ug/L

03030047-02A

Samples in Analytical Batch:

Pit Sludge

Analyte	Result	Rep Limit
1,1-Dichloroethene	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	20
Benzene	ND	5.0
Carbon tetrachloride	, ND	5.0
Chlorobenzene	ND	5.0
Chloroform	ND	5.0
Tetrachloroethene	ND	5.0
Trichloroethene	ND	5.0
Vinyl chloride	ND	10
Surr: 1,2-Dichloroethane-d4	90.0	62-130
Surr: 4-Bromofluorobenzene	88.0	70-130
Surr: Toluene-d8	98.0	74-122

Leachate Blank

RunID:

L_030306B-1541004

Units:

ug/L

Analysis Date:

03/06/2003 14:05

Analyst: LT

Leach Date:

03/03/2003 10:02

Leach By: LM Method SW1311

Analyte	Result	Rep Limit
1,1-Dichloroethene	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	20
Benzene	ND	5
Carbon tetrachloride	ND	5
Chlorobenzene	ND	5
Chloroform	ND	5
Tetrachloroethene,	ND	5
Trichloroethene	ND	5
Vinyl chloride	ND	. 10

Laboratory Control Sample (LCS)

RunID:

Analysis Date:

L_030306B-1541002

Units:

03/06/2003 9:59

ug/L Analyst: LT

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	60	120	35	175
1,2-Dichloroethane	50	49	98	35	175
2-Butanone	50	50	100	10	175
Benzene	50	52	104	35	175

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

3/11/2003 7:57:05 AM



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

USA ENVIRONMENT

Miller Transporter

Analysis:

TCLP Volatile Organics

Method: SW8260B WorkOrder:

03030047

Lab Batch ID:

R79154

Laboratory Control Sample (LCS)

RuniD:

L 030306B-1541002

Units:

ug/L

Analysis Date:

03/06/2003 9:59

Analyst: LT

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Carbon tetrachloride	50	55	110	35	175
Chlorobenzene	50	49	98	35	175
Chloroform	50	56	112	35	175
Tetrachloroethene	50	43	86	35	200
Trichloroethene	50	47	94	35	175
Vinyl chloride	50	72	144	35	175

Matrix Spike (MS)

Sample Spiked:

03030005-01

RunID:

L_030306B-1541006

Units:

ug/L

Analysis Date:

03/06/2003 15:00

Analyst: LT

Leach Date:

03/03/2003 10:02

Leach By: LM Method SW1311

Analyte	Sample Result	Spike Added	MS Result	MS % Recovery	Low Limit	High Limit
1,1-Dichloroethene	ND	500	550	110	35	175
1,2-Dichloroethane	ND	500	470	94	35	175
2-Butanone	ND	500	530	106	10	175
Benzene	· ND	500	510	100	35	175
Carbon tetrachloride	ND	500	510	102	35	175
Chlorobenzene	∵ ND	500	460	92	35	175
Chloroform	ND	500	530	105	35	175
Tetrachloroethene '	., ND	500	410	82	35	200
Trichloroethene	ND	500	450	90	35	175
Vinyl chloride	ND	500	760	152	35	175

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

3/11/2003 7:57:05 AM



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

USA ENVIRONMENT

Miller Transporter

Analysis: Method:

Corrosivity SW9045C

WorkOrder:

03030047

Lab Batch ID:

R78888

Samples in Analytical Batch:

Lab Sample ID

Client Sample ID

03030047-02A

Pit Sludge

Laboratory Control Sample (LCS)

RunID:

WET_030303M-1535435

Units:

Analysis Date:

03/03/2003 18:00

pH Units Analyst:

LM

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Corrosivity	7	7.01	100	99	101

Sample Duplicate

Original Sample:

03030039-01

WET_030303M-1535436

Units:

pH Units

Analysis Date:

RunID:

03/03/2003 18:00

Analyst:

LM

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Corrosivity	7.4	7.36	0	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

3/11/2003 7:57:07 AM



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054

HOUSTON, TX 77054 (713) 660-0901

USA ENVIRONMENT

Miller Transporter

Analysis: Method: Reactive Sulfide - Solid

SW7.3.4.2

WorkOrder:

Lab Batch ID:

03030047 R79294

Method Blank

Samples in Analytical Batch:

RunID:

WET_030309J-1544088

Units:

mg/Kg

Lab Sample ID

Client Sample ID

Analysis Date:

03/09/2003 19:00

Analyst: E_S

03030047-02A

Pit Sludge

Analyte	Result	Rep Limit
Reactive Sulfide	ND	10

Laboratory Control Sample (LCS)

RunID:

WET_030309J-1544090

Units: mg/Kg

Analysis Date:

03/09/2003 19:00

Analyst: E_S

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit	
Reactive Sulfide	100	102	102	85	115	

Sample Duplicate

Original Sample:

03030047-02

WET_030309J-1544091

Units:

mg/Kg

Analysis Date:

RunID:

03/09/2003 19:00

Analyst: E_S

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Reactive Sulfide	ND	ND	0	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

3/11/2003 7:57:08 AM



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

USA ENVIRONMENT

Miller Transporter

Analysis:

Reactive Cyanide-Solid

Method:

SW7.3.3.2

mier mansporter

WorkOrder:

03030047

Lab Batch ID:

R79296

Method Blank

Samples in Analytical Batch:

RunID:

WET_030309L-1544109

Units:

mg/Kg

Lab Sample ID

Client Sample ID

Analysis Date:

03/09/2003 21:00

Analyst: E_S

03030047-02A

Pit Sludge

Analyte	Result	Rep Limit
Reactive Cyanide	ND	1.0

Laboratory Control Sample (LCS)

RunID:

WET_030309L-1544111

Units:

mg/Kg

Analysis Date:

03/09/2003 21:00

Analyst: E_S

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit	
Reactive Cyanide	4	0.946		5	50	

Sample Duplicate

Original Sample:

03030047-02

RunID:

WET_030309L-1544113

Units:

mg/Kg

Analysis Date:

03/09/2003 21:00

Analyst: E_S

Analyte	Sample Result	DUP Result	RPD	RPD Limit	
Reactive Cyanide	ND	ND	0	20	

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

3/11/2003 7:57:09 AM



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

USA ENVIRONMENT

Miller Transporter

Analysis: Method:

Ignitability Modified Open Cup

ASTM D92-01

WorkOrder:

03030047

Lab Batch ID:

R79300

Samples in Analytical Batch:

Lab Sample ID

Client Sample ID

03030047-02A

Pit Sludge

Laboratory Control Sample (LCS)

RunID:

WET_030308N-1544155

Analysis Date:

03/08/2003 21:30

Analyst: DP

Ánalyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit	
Ignitability	80	80	100	90	110	

Sample Duplicate

Original Sample:

03030005-03

WET_030308N-1544156

Units:

٥F

Analysis Date:

RunID:

03/08/2003 21:30

DP Analyst:

Analyte	Sample Result	DUP Result	RPD	RPD Limit		
Ignitability	>212	>212	0	20		

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply,

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

3/11/2003 7:57:11 AM

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SPL, Inc.						SPL Workorder No:				181367							
	Analysis Request & Chain of Custody Record							03030047				page_	of				
Client Name: Miller Tran	matrix bottle size pres.					Requested Analysis											
Address/Phone: 15855 (Wood)	DR. Cha	mnelis'eu.T.	281 X. 457-63	/ P	glass	vial					je s						ĺ
Client Contact: Guy Cunning	ham			1 5	ber 2	04 0		ners		7	m/						
Project Name: Project Number: Project Location:			S=soil O=other:	A=amber g V=vial	4=40z 40=vial 16=160z	=HCl 2=HNO3 =H2SO4 O=other:		I	P Volarile	Sem. Va							
			1	1													
			=water=sludge	P=plastic G=glass	ig.												
Invoice To:		,		=water =sludg	pla gla	1=1 liter 8=80z	H2 H2	- qui	100	Re 17.0	77]]	1			
SAMPLE ID	DATE	TIME	comp gra	S X	اظ ق	# &	-	Ž			1/2			<u> </u>			
INFlueNt WASteWATER	3-3-03	11:05 Am	V	1	A	ļ	0	6	/	V	/						
INFluent Wastewaren Pit Sludge	3-3-03	10:55 AM	V		G		0	2	/	/							<u> </u>
J					<u> </u>												
							<u> </u>										
,									<u>.</u> .								
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	:								1					3	,		
Client/Consultant Remarks:		L	<u>.</u>	Laborate	ory remark	ks:		1	<u></u>	<u> </u>		<u></u>	<u> </u>	Intact	?	Y 🔾	LIN
							·				Temp		⊃ €	,			
Requested TAT Special Reporting Requirements Fax Results Raw Data Special De					Detection Limits (specify):						icw (init	ial):					
	Standard CC D Loval 2 CC D Loval 4 CC D											1 4	، ∕ح^	(B)			
24hr 72hr	1. Relinquishe	Relinquished by Sampler: date time 3-3-03 /1/10 Ad					10 Am Rate ASUT										
1 – –	3-3-03 //:/OAM 3. Relinquished by: date time				UMM	1. Received by:											
Other [5. Relinquished by: date / time					6. Received by Laboratory:											
	- Haterson 3/3/03 1305						دق	Lay Sanace.									
8880 Interchange Drive,								mbass	ador (Caffery	Parkv	vay, S			33 (318	3) 237-	4775
459-Hughes Drive, Trav	erse City, 1	√II 49684 (6	16) 947-	5777													

Sample Receipt Checklist And Chain of Custody

3/11/2003 7:57:11 AM

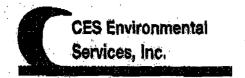


HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

Sample Receipt Checklist

Workorder: 03030047			Receive	ed By: I	NB	
Date and Time Received: 3/3/2003 1:05:00	РМ		Carrier (name: S	SPL	
Temperature: 2			Chilled I	by: ١	Water Ice	
1. Shipping container/cooler in good cond	ition?	Yes 🗹	No 🗌	Not Preser	nt 🗆	
2. Custody seals intact on shippping conta	niner/cooler?	Yes 🗹	No 🗌	Not Preser	nt . \square	
3. Custody seals intact on sample bottles?		Yes 🗌	No 🗌	Not Preser	nt 🗹	
4. Chain of custody present?		Yes 🗹	No 🗌			
5. Chain of custody signed when relinquis	hed and received?	Yes 🗹 .	No 🗌			,
6. Chain of custody agrees with sample lab	pels?	Yes 🗹	No 🗌			
7. Samples in proper container/bottle?		Yes 🗹	No 🗌			
8. Sample containers intact?		Yes 🗹	No 🗌			
9. Sufficient sample volume for indicated to	est?	Yes 🗹	No 🗌			
10. All samples received within holding time	?	Yes 🗹	No 🗌	٠		
11. Container/Temp Blank temperature in co	mpliance?	Yes 🗹	No 🗌			
12. Water - VOA vials have zero headspace?		Yes	No 🗌	Not Applica	able 🗹	
13. Water - pH acceptable upon receipt?	*	Yes 🗹	No 🗌	Not Applica	able 🗌	
SPL Representative:		Contact Date &	Time:			
Client Name Contacted:						44
Non Conformance Issues:						
Client Instructions:	•					

3/11/2003 7:57:12 AM



4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1676

Waste Profile Re-Certification Form

CES Waste Approval #: HOU-1963

Customer:

Miller Transporters

Waste Generator:

Miller Transporters

Waste Stream Name:

Waste sludge

Expiration Date:

1/3/2009

As per our waste analysis plan, CES Environmental Services, Inc. requires recertification of all approved waste profiles on an annual basis. The purpose of this form is to confirm that no changes have been made in the generation process of the aforementioned waste stream and that the waste stream remains classified as nonhazardous as per 40 CPR 261.3.

Generator hereby certifies that the components in the aforementioned waste stream and the process generating this waste stream remain the same as when issued the aforementioned CES Waste Approval Number: (Check Appropriate Box)

- No changes, please recertify.
- O Please send new profile as waste stream has changed.

- Analysis is NOT required for recertification.
- The following analysis is required for recertification. Please sumbit results of the following tests.

X TCLP Metals

TCLP Volatiles

TCLP Semi-volatiles

© Reactivity

C Corrosivity

O Ignitability

Mercury Environmental Services, Inc.

JAN 2 2 2007

6913 HWY 225, Deer Park, TX 77536 Phone: (281)-476-4534 Fax: (281)-476-4406

CES Environmental Services

4904 Griggs Rd Houston, TX 77021 Phone: (713) 676-1460 Fax:

(713) 676-1676

Attn: **Dana Carter**

CERTIFICATE OF RESULTS -

MES Lab#:

7010165

Client Sample ID: Extended ID:

Sump Sludge Miller Transporters

Sample Collect Date: 1/5/2007 @ 9:00:00 AM

Sample Type:

Sample Receipt Date: 1/5/2007 @ 2:35:00 PM

Test Group / Method

TCLP Volatiles) #D1		, - 		Analyst: TFR
Method: SW-846 8260B	MDL	RL	Result	Units	Date / Time
Vinyl chloride	0.010	0.2	< 0.010	mg/L	1/11/2007 / 11:25 PN
1,1-Dichloroethene	0.005	0.7	< 0.005	mg/L .	1/11/2007 / 11:25 PM
2-Butanone	0.050	200	< 0.050	mg/L	1/11/2007 / 11:25 PN
Chloroform	0.005	6	< 0.005	mg/L	1/11/2007 / 11:25 PN
Carbon tetrachloride	0.005	0.5	< 0.005	mg/L	1/11/2007 / 11:25 PM
1,2-Dichloroethane	0.005	0.5	< 0.005	mg/L	1/11/2007 / 11:25 PM
Benzene	0.005	0.5	0.012	mg/L	1/11/2007 / 11:25 PN
Trichloroethene	0.005	0.5	< 0.005	mg/L	1/11/2007 / 11:25 PM
Tetrachloroethene	0.005	0.7	< 0.005	mg/L	1/11/2007 / 11:25 PN
Chlorobenzene	0.005	100	< 0.005	mg/L	1/11/2007 / 11:25 PM
1,4-Dichlorobenzene	0.005	7.5	< 0.005	mg/L	1/11/2007 / 11:25 PN
Hexachlorobutadiene	0.005	0.5	< 0.005	mg/L	1/11/2007 / 11:25 PM
TCLP Sem-Volatiles			•		Analyst: TFR
Method: SW-846 8270C	MDL	RL	Result	Units	Date / Time
Pyrldine	0.05	5	< 0.05	mg/L	1/11/2007 / 12:05 AM
1.4-Dichlorobenzene	0.05	7.5	< 0.05	mg/L	1/11/2007 / 12:05 AN
o-Cresol	0.05	200	< 0.05	mg/L	1/11/2007 / 12:05 AN
m+p-Cresol	0.05	200	< 0.05	mg/L	1/11/2007 / 12:05 AN
Hexachloroethane	0.05	3	< 0.05	mg/L	1/11/2007 / 12:05 AN
Nitrobenzene	0.05	2	< 0.05	mg/L	1/11/2007 / 12:05 AN
Hexachlorobutadiene	0.05	0.5	< 0.05	mg/L	1/11/2007 / 12:05 AM
2,4,6-Trichlorophenol	0.05	2	< 0.05	mg/L	1/11/2007 / 12:05 AM
2,4,5-Trichlorophenol	0.05	400	< 0.05	mg/L	1/11/2007 / 12:05 AM
	1.0.05	0.13	< 0:05	mg/L	1/11/2007 / 12:05 AM
7.4-Dinitrotoluene		V. (V	- 4144		11 1. 12 man and 1 1 1 may and 2 1/2
2,4-Dinitrotoluene Hexachlörobenzene	0.05	0.13	< 0:05	mg/L	1/11/2007 / 12:05 AM

Report Date: 16-Jan-07

Page 1 of 2

Fax:281-457-6028

MILLER TRANSPORTERS

- CERTIFICATE OF RESULTS -

MES Lab#:

7010165

Client Sample ID:

Sump Sludge

Extended ID:

Miller Transporters

Sample Collect Date: 1/5/2007 @ 9:00:00 AM

Sample Type:

Comp

Sample Receipt Date: 1/5/2007 @ 2:35:00 PM

TCLP Metals (8)					Analyst: HD0	3IL
Method: SW-846 6010B	MDL	RL	Result	Units	Date / Time	
Arsenic	0.050	5	< 0.050	mg/L	1/8/2007 /	7:54 PM
Barium	0.002	100	0.016	mg/L	1/8/2007 /	7:54 PM
Cadmium	0.004	1	< 0.004	mg/L	1/8/2007 /	7:54 PM
Chromium	0.007	5	< 0.007	mg/L	1/8/2007 /	7:54 PM
Lead	0.010	5	< 0.010	mg/L	1/8/2007 /	7:54 PM
Selenium	0.050	1	< 0.050	mg/L	1/8/2007 /	7:54 PM
Silver	0.002	5	< 0.002	mg/L	1/8/2007 /	7:54 PM
TCLP Mercury Method: SW-846 7470A	MDL	RL	Result	Units	Analyst: AM Date / Time	
Mercury	0.0002	0.2	< 0.0002		1/8/2007 /	12:05 AN
Reactivity, Recoverable Hydrogen Cya Method: 7.3.3.2	anide MDL		Result	Units	Analyst: CL Date / Time	
Hydrogen Cyanide	0.25		< 0.25	mg/kg	1/9/2007 /	1:00 PM
Reactivity, Recoverable Hydrogen Sul Method: 7:3,4,2	fide MDL		Result _	Units	Analyst: CL Date / Time	·
Hydrogen Sulfide	0.25		2.73	mg/kg	1/8/2007 /	1:30 PM
Corrosivity: pH Method: SW-846 9045	MDL		Result	Units	Analyst: CL Date / Time	: · · · · · · · · · · · · · · · · · · ·
рН			5.06		1/8/2007 /	1:15 PM
Ignitability Method: SW-846 1010	MDL		Result	; Units	Analyst: DB Date / Time	
Flashpoint	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		>150	deg F	1/8/2007 /	11:40 AN
- immile 2 (/II			- 100	2 .		

RL=regulatory limit

Holland D. Gilmore, Laboratory Director

Tuesday, January 16, 2007

Date

Report Date: 16-Jan-07 Page 2 of 2

7010165

MERCURY ENVIRONMENTAL SERVICES QA/QC REPORT

SURROGATE	SPIKE RECO	VERY FOR	VOLATILES		<u>,</u>	% REC		_
Dibromofluoro Toluene-d8 4-Bromofluoro					: `:	97.3 89.8 96.5		
SURROGATE	SPIKE RECO	VERY FOR	SEMIVOLATI	LES		% REC		
2-Fluoropheno					ومود و وروسون	69.1		••••
Phenol-d6 Nitrobenzene- 2-Fluorobiphe 2,4,6-Tribrom- p-Terphenyl-d	nyl ophenol					58.0 62.0 75.6 80.6 72.2		
ANALYTE	MB mg/L	LCS %REC	LCSD %REC	RPD	MS %REC	CCB mg/L	CCV %REC	<u> </u>
Arsenic Barium Cadmium Chromium Lead Mercury	< 0.005 < 0.002 < 0.004 < 0.007 < 0.010 < 0.0002	96.0 92.0 99.5 92.0	94.0 97.4 92.0 100.0 92.0 96.4	0.53 1.45 0.00 0.20 0.00 0.83	101.0 100.0 96.8 98.0 97.2 96.6	< 0.005 < 0.002 < 0.004 < 0.007 < 0.010 < 0.0002	97.6 94.2 96.7 98.0 94.2 98.6	
Selenium : Silver	< 0.0002 < 0.005 < 0.006	93.1	92.0 94.8	1.19 0.00	92.4 95.2	< 0.0002 < 0.005 < 0.006	95.3 93.9	
ANALYTE	STD	· · · · · · · · · · · · · · · · · · ·		:	•			_ _
Flashpoint	82°F		: مسيح حميد الله السيد	ang at mgangaga ayan sa mag			A OLI ALAMATA MARIENTE (L. C.).	
ANALYTE	BUFFER 7.0	ORIG	DUP RPD				· · · · · · · · · · · · · · · · · · ·	
рН	7.0	7.07	7.07 0.00	:		:		-
ANALYTE			DUP ng/kg RPD			: : :	· · · · · · · · · · · · · · · · · · ·	_
Reactivity as I	lydrogen Sulfid	e < 0.25	< 0.25 0.00					-
		, ;		, ,	,			

Mercury Environmental Services, Inc.

Apr 16 2009 11:36

Fax:281-457-6028

MILLER TRANSPORTERS

7010165 Page 2

QA/QC REPORT CONTINUED

ANALYTE	ORIG mg/kg	DUP mg/kg	RPD	STD %REC			:	
Reactivity as Hydrogen Cyanide	< 0.25	< 0.25	0.00	95		•		. ••
VOLATILES	MS %REC	MSD %REC	%RSD	CCV %REC	MB mg/L	LCS %REC	LCSD %REC	%RSD
Vinyl Chloride	108.2	94.6	3.4	96.1	< 0.010	107.4		0.1
1,1-Dichloroethene	99.0	91	2.1	88.4	< 0.005	100.4		0.6
2-Butanone	103.0	, .	1.9	90.6	< 0.050	101.8	103.6	0.4
Chloroform	93.8	86	2.2	88.2	< 0.005	96.2	96.2	0:0
Carbon tetrachloride	107.4	94.8	3.1	96.2	< 0.005	111.4	109.2	0,5
1,2-Dichloroethane	91.4	85.8	1.6	88.8	< 0.005	94.6	93	0.4
Benzene	99.4	94		90.8	< 0.005	97.8	95.6	0.6
Trichloroethene	96.8	88.6	2.2	90.2	< 0.005	98.8	99.6	0.2
Tetrachloroethene	100.0	91.4	2.2	87.7	< 0.005	139.0	98.8	8.5
Chlorobenzene	94.2	86.2	2.2	92	< 0.005	100.4	96,6	1.0
1,4-Dichlorobenzene	89.0	78.4	3.2	88.6	< 0.005	96.6	93.6	· 0.8
Hexachlorobutadiene	69.0	56.4	5.0	86	< 0.005	99.4	97	0.6
SEMI-VOLATILES	MS %REC	MSD %REC		CCV %REC	MB mg/L	LCS %REC	LCSD %REC	
Pyridine	40.5	49.8		84.1	< 0.05	34.4	49.6	: .
1,4-Dichiorobenzene	38.2	45.8		113.3	< 0.05	56.2	46.6	
o-Cresol	34.3	40.5		110.0	< 0.05	57.8	53.8	•
m+p Cresol		37.6		117.4	< 0.05	54.2	45	
Hexachloroethane	52.3	39.1	•	115,7	< 0.05	49.6	49.1	
Nitrobenzene	33.1	53.8		106.2	< 0.05	42.5	51.4	,
Hexachloro-1,3-butadiene	34.9	36.3		101.4	< 0.05	42.5 51	65.2	
2,4,6-Trichlorophenol	39.2	40.4		101.4		41.8	65.6	
2,4,5-Trichlorophenol	36.6	36.9		96.3	< 0.05	37.9	59.6	•
2,4-Dinitrotoluene	29.6	29.6	•	.95.3	ج 0.05 ج 0.05	28.7. _{*~}	~5 7 .2	بشارمسسجيا ريسم يسيخ
Hexachlorobenzene	47.6	46.6		112.6	< 0.05	54.4	46.4	H YAT I
Pentachiorophenol	29.1	24	1 3x 1 2	65.4	< 0.5	47	41.1	
			13, 3					garan da sa sa sa sa sa sa sa sa sa sa sa sa sa

Key to QA Abbreviations

MS=Matrix Spike RPD=Relative Percent Deviation LCS=Laboratory Control Standard CCB=Continuing Calibration Blank MDL=Minimum Detection Limit

MSD=Matrix Spike Duplicate MB=Method Blank CCV=Continuing Calibration Verification %Rec=Percent Recovery RL=Regulatory Limit

Signature: Holland D. Gilmore / Laboratory Director

January 16,2007

Mercury Environmental Services, Inc.

P. 06

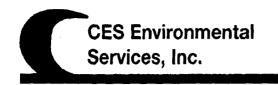
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Apr 16 2009

Fax: 281-457-6028

MILLER TRANSPORTERS

COMPANY NAME: (BILL TO:)	SEnv	Mar	nental	Service	es_		ME			4 % <u>*</u>	F CUSTODY	1 -800-771-4MES (281) 476-4534
COMPANY ADDRESS: 4904	r Acres		STATE IX	710	1707.1	6					iervices 36	Fax (281)-476-4406
CONTACT PERSON'S NAME:	Mm.C	ÄĽł	er				. 1	RAMETE	FOR A	NALYSIS		5 REMARKS
CONTACT PERSON'S PHONE: 1	<u></u>	180	<u> </u>	113-67	0-110710			W. Kit			STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE	STORMAROUND TIME
2 Miller Transpire	vour po. * ens-Sur	DO	udge	HOUSE!		1/-	-/≲	1/8/	Ctai	//	TOF CON	DETECTION LWITS SPECIAL LWITS REQUIRED
YOUR SAMPLE DESCRIPTI	ON	GARB/C	OMP. DAVE	TIME	MATRIX	R	1200	CLPS CATION	5	[:/:	NUMBER OF CONTAINERS	Yes No Please circle one, il Yes. please describe below
Smo Sludge		am		 	Slodge		1-					or include separate sheet databling requirements
J					- 0							
						-	.			\		
3				<u> </u>					-			3
						-						
				· · · · ·								
		-	-			1.						
									}			
PERSON TAKING SAMPLE SIGNATURE (a Prinî Namp &	h - Sig t):	. ** : : :		REU	VOUISHED	ev.	dz	1	DATE	TIME	
AELINOUISHEO BY: (Egrations)	DATE	TIM	E RECEIVE((Signature)		(Stgna	NOUISHED	BY:	NC		CATE		CEIVED BY:
METHOD OF PAYMENT	SHIPPE (Signalor	DBY: \		(Signal	RIER	-			PECEIVED 1 (Signature)	C W	710	1 2C
Sample Remainder Disposal O Return Sample Remainder To Clien	Wa	1				•	ab To Dis	pose Of A	Sample A	lemainters	Contract	
Form & MES - CCFB	E & CANAD	v A	denod udba S		DIALK Bo	ilure)				TE D-	turned with R	anort .



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/5/2007

Dear

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1984

Generator: Praxair-Texas City **Address:** 1720 Grant Ave

Texas City, TX 77590

Waste Information

Name of Waste: Universal waste batteries

TCEQ Waste Code #: UNIV

Container Type:

pallet

Detailed Description of Process Generating Waste:

Spent batteries

Color: varies

Odor: none

pH: na

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc. DEC-12-2006 10:38

Rick Hemminger

CES Environmental Svcs.

(281) 478-7834

P.02 7137488664

p.2 DC



#1984

4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com#1984

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Gene	erator Information					
Company:		City - Grant Ave)			<u></u>	
Address:	1720 Grant Ave					
City, State, Zip:	Texas City, TX	17590				
Contact:	Rick Hemminge		Title:	HSE Mar		
Phone No:	281-478-7844		Fax No:	281-478-	7834	
24/hr Phone:						
U.S. EPA I.D. No:	TXR000056150					
State I.D.	87342		SIC Code:	图 2	813	
		······································				
SECTION 2: Billin	g Information -	Same as Ahove				
Company:		epartment Praxair Inc.				
Address:	P.O. Box 808					
City, State, Zip:	Tonawanda, NY I	1151-0808			*****	
Contact:		Title:			*	
Phone No:		Fax No	<u></u>			
, 110110-1401		744	·		V	
CECTION 1. Caus	nal December of	ha Wasta				
SECTION 3: Gene	rai Description of t	ne waste				
Name of Waste: <u>Ur</u> Detailed Description		ries oting Waste: <u>Spent Batte</u>	ries			
Dhamina Ctata	⊠ • • · · · · · · · · ·	Пена	□ » •••••			
Physical State:	⊠ Liquid	∐ Sludge	☐ Powder			
	⊠ Solid	Filter Cake	Combinatio	Ω		
Color: <u>varies</u>		Odor: none				
Specific Gravity (wi	iter=1): <u>NA</u>	Density: NA lbs/gal				
		•				
Layers:	Single-phase	Multi-phas	E			
,	The branch of the same		•			
Container Type;	☐ Drum	Tote	Truck	Ø	Other (explain)	
		xore				
Container Size:					pallet	
requency:	☐ Weekiy	Monthly	☐ Quarterly		Yearly	
• •			en Gamenti	. —		
Number of Units (co	· —	Other:				
Texas State Waste C	Code No: U	niversal Waste				
roper U.S. DOT Sh	ipping Name:	Environmentally	hazardous substance	solid, n.o.	ş.	
•	•••	-	· · · · · · · · · · · · · · · · · · ·			
Class: 9	UN/I	NA: UN 3077	PG: III		RQ: NA	
		······································				
	· · · · · · · · · · · · · · · · · · ·	1				
lash Point	pH	Reactive Sulfides	Reactive C	yankies	Solids	
<u>IA</u>	NA NA	NAmg/I	NAmg/I		100%	
li& Grease	TOC	Zinc	Copper		ckel	
\AA	: NIA — -//	I NIA /I	1 N/A	1 N/2	A 400 40 / E	

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DEC-12-2006 10:38

CES Environmental Svcs.

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P.03

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE	Conecutration	Units
The waste consists of the following materials	Ranges are acceptable	or %
Lead Acid Batteries	0-100	%
Nicad Batteries	0-100	
		
		+
		1

SECTION 5: Sufety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. Standard PPE

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package.

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

None

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Mctals:	<u> </u>
TCLP Volatiles:	2
TCLP Semi-Volatiles:	2
Reactivity:	2
Corrosivity:	X
Iguitability:	X

SECTION 9: Generator's Certification

The information contained herein is based on \boxtimes generator knowledge and/or \square analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Anthorized Signature: Liek Hemminger	Date: 12-8-06
Printed Name/Title: Rick Hemminger - Envionmental Manager	

Compliance Officer: Refinantilles	Process Facility Information:
Date: 12-27 Approved Rejected	REC
Approval Number: 1984	

02	2.07.08:36a-gas Rick-Hemminger system (281) 478-7834	
DEC-	12-2006 10:39 CES Environmental Svcs.	7137488664	1
S	ECTION 10: Waste Receipt Classification Under 40 CFR 437		_
-			
15	this material a wastewater or wastewater sludge? YES NO		
lf	'Yes', complete this section.		
P	LEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY,	GO TO THE NEXT PAGE.	
Met	als Subcutegory: Subpart A		
	Spent electroplating baths and/or sludges		
Ц	Metal finishing rinse water and sludges		
	Chromate wastes		
닏	Air pollution control blow down water and sludges		
닏	Spent anodizing solutions		
Щ	Incineration wastewaters		
님	Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l		
H	Waste acids and bases with or without metals		
H	Cleaning, rinsing, and surface preparation solutions from electroplating or phosphatin	an operations	
H	Vibratory deburring wastewater	ig oberguous	
Ħ	Alkaline and acid solutions used to clean metal parts or equipment		
olle i	Subcategoty: Subpart B		
<u> </u>			
╡	Used oils		
닉	Oil-water emulsions or mixtures		
╡	Lubricants		
=	Coolants		
╡	Contaminated groundwater clean-up from petroleum sources		
4	Used petroleum products Oil spill clean-up		
=	Bilge water		
╡	Rinse/wash waters from putroleum sources		
╡	Interceptor wastes		
╡	Off-specification fuels		
ヿ	Underground storage remediation waste		
=	Tank clean-out from petroleum or oily sources		
₹	Non-contact used glycols		
╡	Aqueous and oil mixtures from parts cleaning operations		
ヿ゙	Wastewater from oil bearing paint washes		
 Denni	nics Subcategory: Subpart C		
_	Landfill leachate		
4	Contaminated groundwater clean-up from non-petroleum sources		
╣	Solvent-bearing wastes		
4	Off-specification organic product		
4	Still bottoms		
╡	Byproduct waste glycol		
╡	Wastewater from paint washes		
╡	Wastewater from proping chamical product operations	en en en en en en en en en en en en en e	
	THE OPPOSITE THAT AND ADDRESS ADDRESS AND DESCRIPT AND THE AND THAT AND THE AN		

Tank clean-out from organic, non-petroleum sources

(281) 478-7834 7137488664 р.5

P.05

(1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.

(2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory:

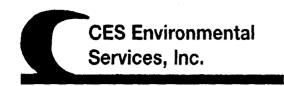
Cadmium: 0.2 mg/L Chromium: 8.9 mg/L Copper: 4.9 mg/L Nickel: 37.5 mg/L

(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.

☐ Metals Subcategory☐ Oils Subcategory☐ Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 1/5/2007

Dear

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1985

Generator: Praxair-Texas City **Address:** 1720 Grant Ave

Texas City, TX 77590

Waste Information

Name of Waste: Universal waste - light bulbs

TCEQ Waste Code #: UNIV

Container Type:

boxes

Detailed Description of Process Generating Waste:

Used light bulbs

Color: varies

Odor: none

pH: na

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



CES Environmental Services, Inc.

1985

4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

Fax: (713) 676-1676

http://www.cesenvironmental.com # 1/85 TCEQ Industrial Solid Waste Permit No: 30948

U.S. EPA ID No: TXD008950461

ISWR No: 30900

SECTION 1: Gener	rator Information				
Company:	Praxair (Texas Cit	y - Grant Ave)			
Address:	1720 Grant Ave G				
City, State, Zip:	Texas City, TX 7	7590			
Contact:	Rick Hemminger	. Program of the of	Title:	HSE Mar	nager
Phone No:	281-478-7844		Fax No:	281-478-	7834
24/hr Phone:					•
U.S. EPA I.D. No:	TXR000056150				
State I.D.	87342		SIC Code:	2813	
SECTION 2: Billing	Information -	Same as Ahove			
Company:		partment Praxair Inc.			
Address:	P.O. Box 808	paramont razan me.			
City, State, Zip:	Tonawanda, NY 141	51-0808			
Contact:	Tonawanua, 141 141	Title:			
Phone No:		Fax No:			
Phone No:		rax No:			
SECTION 3: Gener	al Description of the	e Waste			
					·
Name of Waste: United Detailed Description		Bulbs ing Waste: Used light bu	<u>lbs</u>		
Physical State:	Liquid	Sludge	Powder		
•	∑ Solid	Filter Cake	Combinatio	n ·	
	M 20110	☐ Filter Cake	Combinatio	11	
Color: varies		Odor: <u>none</u>			
Specific Gravity (wa	ter=1): <u>NA</u>	Density: NA lbs/gal			
Layers:	Single-phase	☐ Multi-phase			
Container Type:	Drum	☐ Tote	Truck	\boxtimes	Other (explain)
~ -	Drum	10te	ITUCK		
Container Size:					boxes
Evanuaria	□ Washbu	☐ Monthly			Yearly
Frequency:	☐ Weekly			لبيا	Latty
Number of Units (co		Other:			
Texas State Waste C	ode No: Un	iversal Waste			
Proper U.S. DOT Sh	ipping Name:	Environmentally H	azardous Substanc	e, solid, n.c	O.S.
Class: 9	UN/NA	A: UN3077	PG: III		RQ: NA
				·	
D. I.D.:	T	Danatina Callida	Day 4 C		Calido
Flash Point	pH	Reactive Sulfides	Reactive C	yanides	Solids
NA O'16 C	NA TOC	NAmg/I	NAmg/I	No. 12	<u>100</u> % ckel
Oil&Grease	TOC	Zinc	Copper	- 1	ckei Lma/l

DEC-12-2006 10:39

CES Environmental Svcs.

7137488664

P.07

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE	Concentration	Units
The waste consists of the following materials	Ranges are acceptable	or %
Flourescent Light Bulbs	0-100	%
Allied Light Bulbs	0-100	%
Sodium Light Bulbs	0-100	%

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. Standard PPE

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. None

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals:	2
TCLP Volutiles:	2
TCLP Semi-Volutiles:	>
Reactivity:	2

X Corrosivity;

Ignitability:

SECTION 9: Generator's Certification

The information contained herein is based on 🛛 generator knowledge and/or 🔲 analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Authorized Signature: Lich Hemmire	Date: 12-8-06
Printed Name/Title: Rick Hemminger - Environmental Manager	

	CES USE ONLY (DO NOT WRITE IN THIS SPACE)	
	Compilance Officer: Baling Blage A.	Process Facility Information:
į	Date: 1-2-09 (Approved) Rejected	REC
-	Approval Number: 1985	

DEC-12-2006 10:39 CES Environmental Svcs.

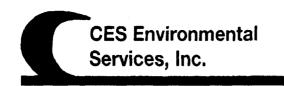
<u>S1</u>	SECTION 10: Waste Receipt Classification Under 40 CFR 437	
Ìs	Is this material a wastewater or wastewater sludge? YES No	
If	If 'Yes', complete this section.	
Pl	PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE	CATEGORY, GO TO THE NEXT PAGE.
Mela	leials Subcategory: Subpart A	
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplatin Vibratory deburning wastewater Alkaline and acid solutions used to clean metal parts or equipment	g or phosphating operations
Olls S	ls Subcategory: Subpart B	
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes	
Organ	zanics Subcategory: Subpart C	
	Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources	

(1)	If the v	waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess values listed below, the waste should be classified in the metals subcategory.
	Chrom Cappe	um: 0.2 mg/L ium: 8.9 mg/L r: 4.9 mg/L : 37.5 mg/L
(3)		vaste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or above any of the values listed above, the waste should be classified in the organics subcategory.
		Metals Subcategory
		Oils Subcategory
		Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

National Oil Well 1986
Rofile # 1986



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date

1/5/2007

Dear

Larry Black

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile #

1986

Generator: National Oil Well (Monoflo)

Address:

16503 Park Row

Houston, TX 77084

Waste Information

Name of Waste: Neutralized degreaser water

TCEQ Waste Code #: 00161102

Container Type:

Detailed Description of Process Generating Waste:

Degreaser and water mixture used to remove oil film from steel pipe. Based on process knowledge of the degreasing process, the stream does not come in contact with characteristic, listed or process hazardous materials.

Color: clear to grey

Odor: none

pH: 6-10

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

Level D

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.

a12

#1986

4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Gener Company:	ator Information National Oil Well	(Montflo) Nak	ional Volu	Al Vare	(Marth)
Address:	16503 Park Row	(wommo) 70 9-7	CALL DOLLAR	o. Parc	1,4,0,1
City, State, Zip:	Houston, TX 770	084			
Contact:	Terri Cranford		Title:	EH & S Mana	ger
Phone No:	281-599-4718		Fax No:	281-599-4733	
24/hr Phone:	CES-713-676-146	50			
U.S. EPA LD. No:	TXD988086831		-	. Λ.	
State LD.	20375		SIC Code:	NA	
SECTION 2: Billing	Information – 🕅	Same as Above			
Company:	, All Or Hill Color P. A.	(),,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Address:		······································			
City, State, Zip:			· · · · · · · · · · · · · · · · · · ·		
Contact:		Title:		······································	
Phone No:	······································	Fax No:			
process knowledge of materials	utralized Degreaser of Process Genera the degreasing proc	Water ting Waste: Degreaser and ess, the stream does not co	me in contact with		film from steel pipe. Based or sted or process hazardous
Physical State:		☐ Sludge ☐ Filter Cake	☐ Powder ☐ Combination	n	
Color: Clear to Grev		Odor: none			
Specific Gravity (wa	ter=1): <u>.99-1.01</u>	Density: 8 lbs/gal			
Layers:	Single-phase	☐ Multi-phase			
Container Type:	☐ Drum	☐ Tote		☐ Oti	aer (explain)
Container Size:			<u>3000</u>		accentina quagra
Frequency: Number of Units (co	ntainers): 1	Monthly Other:	Quarterly	☐ Yes	arly
Proper U.S. DOT Sh	<u> </u>	Non-RCRA; Non-I	OT Regulated Me	terial	
		·			DO: NA
Class: NA	UN/N	A: NA	PG: NA		RQ: NA
Flash Point	pH	Reactive Sulfides	Reactive C	yanides	Solids
>150	6-10	Omg/I	Omg/I		<3%

Oil&Grease	TOC	Zinc	Copper	Nickel
<1500mg/l	<1500mg/l	<u>O</u> mg/l	<u>O</u> mg/l	<u>O</u> mg/l

SECTION 4: Physical and Chemical Data

COMPONENTS TABLE	Concentration	Units
The waste consists of the following materials	Ranges are acceptable	or %
Water with surfactant	97-100	9/0
Dirt, rust scale, plastic	0-3	%
Oil	0.10 0-0.1	0/0

SECTION 5: Safety Related Data

If the bandling of this waste requires the use of special protective equipment, please explain. Level D

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. Analysis

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

none

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

HULP Metals:	
TCLP Volatiles:	X
TCLP Semi-Volatiles:	X
Reactivity:	X
Corrosivity:	X
Ignitability:	\overline{X}

SECTION 9: Generator's Certification

The information contained herein is based on \boxtimes generator knowledge and/or \boxtimes analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.

Printed Name/Title: #15 & E/Minyatury Supert Specialist CEN USE ONLY (DO NOT WRITE IN THIS SPACE) Date: 1/2/17 Printed Name/Title: #15 & E/Minyatury Supert Specialist
CENUSE ONLY (DO NOT WRITE IN THIS SPACE)
Compliance Officer: Political Additional Information:
Date: 1-2-07 (Approved) Rejected IL -CKISZ
Approval Number: 1986

<u>S</u> 1	SECTION 10: Waste Receipt Classification Under 40 CFR 437	<u>!</u>
ls	Is this material a wastewater or wastewater sludge? YES	⊠ NO
11	If 'Yes', complete this section.	
P_{i}	PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROP	RIATE CATEGORY, GO TO THE NEXT PAGE.
Met	tals Subcategory: Subpart A	
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electr Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment	
<u>Oils</u>	s Subcategory: Subpart B	
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes	
Orga	zanies Subcategory: Subpart C	
	Landfill leachate Contaminated groundwater clean-up from non-petroleum source Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations [and chemical from organic non-petroleum sources]	ces

(1)	II the	waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)		waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess values listed below, the waste should be classified in the metals subcategory.
	Chron Coppe	ium: 0.2 mg/L nium: 8.9 mg/L er: 4.9 mg/L 1: 37.5 mg/L
(3)		waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, cabove any of the values listed above, the waste should be classified in the organics subcategory.
		Metals Subcategory
		Oils Subcategory
		Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.

Mercury Environmental Services, Inc.

6913 HWY 225, Deer Park, TX 77536 Phone: (281)-476-4534 Fax: (281)-476-4406

CES Environmental Services

4904 Griggs Rd Houston, TX 77021 Phone (713) 676-1460

Fax: (281) 676-1676

Attn:

Gary Brauckman

- CERTIFICATE OF RESULTS -

MES Lab#:

5100936

Client Sample ID:

Degreaser Liquid

Sample Collect Date: 10/28/2005 @ 3:00:00 PM

Sample Type:

Grab

Sample Receipt Date: 10/31/2005 @ 12:15:00 PM

Test Group / Method					
TCLP Metals (11) Method: SW-846 6010B	MDL	RL.	Result	Units	Analyst: DCW Date / Time
Antimony	0,032	1	0,089	mg/L	11/1/2005 / 5:21 PM
Arsenic	0.014	5	0.383	mg/L	11/1/2005 / 5:21 PM
Barium	0.0005	100	0.802	mg/L	11/1/2005 / 5:21 PM
Beryllium	0.0005	0.08	0.0024	mg/L	11/1/2005 / 5:21 PM
Cadmium	0.002	1	< 0,002	mg/L	11/1/2005 / 5:21 PM
Chromium	0.002	5	0.952	mg/L	11/1/2005 / 5:21 PM
Lead	0.005	5	1.47	mg/L	11/1/2005 / 5:21 PM
Nickel	0.003	70	0.119	mg/L	11/1/2005 / 5:21 PM
Selenium	0.024	1	0.050	mg/L	11/1/2005 / 5:21 PM
Silver	0.002	5	< 0.002	mg/L	11/1/2005 / 5:21 PM
Vanadium	0.002		0.035	mg/L	11/1/2005 / 5:21 PM
TCLP Mercury Method: SW-846 7470A	MDL	RL	Result	Units	Analyst; DCW Date / Time
Mercury	0.0002	0.2	< 0.0002	mg/L	11/1/2005 / 3:47 PM
Total Petroleum Hydrocarbons Wa Method: TNRCC 1005	ater MDL		Result_	Units	Analyst: TFR Date / Time
C6 - C12 Hydrocarbons	5		< 5	mg/L	11/2/2005 / 7:49 AM
>C12 - C28 Hydrocarbons	5		6	mg/L	11/2/2005 / 7:49 AM
>C28 - C36 Hydrocarbons	5		< 5	mg/L	11/2/2005 / 7:49 AM
Total Petroleum Hydrocarbons	15		< 15	mg/l_	11/2/2005 / 7:49 AM

Report Date: 02-Nov-05

Page 1 of 2

- CERTIFICATE OF RESULTS -

MES Lab#:

5100936

Client Sample ID:

Degreaser Liquid

Sample Collect Date: 10/28/2005 @ 3:00:00 PM

Sample Receipt Date: 10/31/2005 @ 12:15:00 PM

Sample Type:

Grab

Flags: H: Exceeds "High Limit" L: Below "Low Limit" RL=regulatory limit

Holland D. Gilmore, Laboratory Director

Wednesday, November 02, 2005

Date

Report Date: 02-Nov-05

Page 2 of 2

Mercury Environmental Services, Inc.

6913 HWY 225, Deer Park, TX 77536 Phone: (281)-476-4534 Fax: (281)-476-4406

CES Environmental Services

4904 Griggs Rd

Phone (713) 676-1460 Fax: (281) 676-1676

Houston, TX 77021

Attn:

Gary Brauckman

- CERTIFICATE OF RESULTS -

MES Lab#:

5100937

Client Sample ID:

Jet Cutting Rubber Liquid

Sample Collect Date: 10/28/2005 @ 3:00:00 PM

Sample Type:

Grab

Sample Receipt Date: 10/31/2005 @ 12:15:00 PM

Test Group / Method

Total Petroleum Hydrocarbons Wa Method: TNRCC 1005	ter MDL	Result	Units	Analyst: TFR Date / Time		
C6 - C12 Hydrocarbons	5	24	mg/L	11/2/2005 / 4:43 AM		
>C12 - C28 Hydrocarbons	5	499	mg/L	11/2/2005 / 4:43 AM		
>C28 - C36 Hydrocarbons	5	33	mg/L:	11/2/2005 / 4:43 AM		
Total Petroleum Hydrocarbons	15	557	mg/L	11/2/2005 / 4:43 AM		

Flags: H: Exceeds "High Limit" L: Below "Low Limit" RL=regulatory limit

Holland D. Gilmore, Laboratory Director

Wednesday, November 02, 2005

Date

nuironmantal Raminae Inc

Report Date: 02-Nov-05

Page 1 of 1

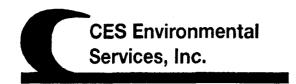
Signature:

Holland D. Gilmore / Laboratory Director

November 2, 2005

	COMPANY NAME: (BILL TO:) Nigtical &	10.1We	Il (man	10/10)			ME	S	- C	HAIN	OF	CUST	Ydo	1-800-771-4MES (281) 476-4534
P	COMPANY ADDRESS: 1996	1.995	····	···			lercur	y Ent	υίτοππι Deer Pan	ental	Sen	vices	3	Fax (281)-476-4406
3	OTY HOUSTESS		STATE TX	ZIP	11021	<u> </u>	-	-	RS FOR A					REMARKS
	CONTACT PERSON'S NAME:	() ()	all mas	200	110		1	\mathcal{T}	7 /	/		/	g /	TURNAROUND TIME
	CONTACT PERSON'S PHONE: 2/3-4	7-573	FAX #: Z	13-6/0	5° (6/1		§ /		//				SAMPLE.	BUTO
2	YOUR PROJECT NO.: YOUR P.O	. #:	YOUR PA	OJECT NAME:			1	<i>[</i>	/ /			NUMBER OF COME.	PRESERVATIONS	DETECTION UMITS SPECIAL LIMITS REQUIRED
	PROJECT ADDRESS:					NY.	$\langle \langle \rangle \rangle$					MBER	SERVA	Yes No
	YOUR SAMPLE DESCRIPTION	GRAB/C	MP. DATE	TIME	MATRI			_ (_				NC!	PRE	
	Derreuser ciantel	-	- p2807	- 3.00g	1 2	i								or include separate sheel detailing requirements,
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	RELINOUISHED BY:	DATE	RECEIVED (Signature)	BY:		RELINQUISHER (Signature)	ВУ:			DAT		THAE	lasi	CEIVED BY:
	METHOD OF PAYMENT	SHIPPED BY: (Signature)			URIER Inalure				RECEIVED (SQUESTED)	FORME	Say:	1		DATE TIME
	Sample Remainder Disposal					CI Reques!	ab To Dis	pose Of	All Sample	Remaind	ders (7	ı	
	Return Sample Remainder To Client Via					(Signature)							Oate)	

Stott - Nielsen Thans 1987 Part # 1987 7 2 4-09 8-4-09 LAD34



Waste Pre-Acceptance/Approval Letter

Date 1/5/2007

Dear Juan Almaguer

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 1987

Generator: Stolt-Nielsen Transportation

Address: 16300 Dezavala

Houston, TX 77530

Waste Information

Name of Waste: Nonhazardous, unused product heels

TCEQ Waste Code #: 00746061

Container Type:

Detailed Description of Process Generating Waste:

Removal of unused product heels prior to cleaning

Color: clear, yellow

Odor: mild, sour

pH: 2.1-3.5

Physical State:

Incompatibilities: reacts weakly to acids, incompatible with strong oxidizing agents,

strong bases, silver, copper, and iron salts

Safety Related Data/Special Handling:

standard

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

CES Environmental Services, Inc.



4904 Griggs Road

Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 ISWR No: 30900 U.S. EPA ID No: TXD008950461

DC	_/

1987

SECTION 1: General	ator Information				
Company:	Stolt-Nielsen Inc				
Address:	16300 De Zavalla Ro	oad, Bldg 4			
City, State, Zip:	Channelview, TX 7	7530			
Contact:	Juan Almaguer		Title:	Tank Cle	aning Manager
Phone No:	832-473-3285		Fax No:	281-860-	
24/hr Phone:	832-473-3285		•	· · · · · · · · · · · · · · · · · · ·	
U.S. EPA I.D. No:	TXD000326819				
State I.D.	83712	8911	SIC Code:	NA	
SECTION 2: Billing	Information – 🔀 Sa	me as Above			
Company:					
Address:					
City, State, Zip:		· · · · · · · · · · · · · · · · · · ·			
Contact:		Title:			
Phone No:		Fax No:			· · · · · · · · · · · · · · · · · · ·
SECTION 3: Genera	al Description of the V	<u>Vaste</u>			
	Hazardous, Unused Pof Process Generating	roduct Heels g Waste: <u>Removal of u</u>	nused product hee	s prior to c	eaning
Physical State:	☑ Liquid☐ Solid	☐ Sludge ☐ Filter Cake	☐ Powder ☐ Combination	n	
Color: clear, yellow	Od	or: mild, sour			
Specific Gravity (wat	er=1): <u>1.27</u>	Density: 10 lbs/gal	· !		
Layers:	Single-phase	Multi-phase			
Container Type: Container Size:	□ Drum □ 55 gal □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1 □ 1	Tote	Truck		Other (explain)
Frequency: Number of Units (con	′ –	Other:	Quarterly		Yearly
Texas State Waste Co	ode No: 0074	6061			
Proper U.S. DOT Shi	pping Name:	Non RCRA/Non Do	OT regulated mater	ial	
Class: \sqrt{A}	UN/NA:	NA	PG:	14	RQ: NA
Flash Point	pH R	Reactive Sulfides	Reactive Cy	anides	Solids
≥140	2-3.5 - 2-1-35 N	Amg/	NAmg/I		0-2%
Oil&Grease	TOC	Zinc	Copper	Nic	
7/500 mg/l	NAmg/I	NAmg/I	NAmg/I	i i	mg/l

SECTION 4: Physical and Chemical Data

GONTEON DATE WATER	Continue and a second	Unis
The waste consists of the following materials	Ranges are acceptable	or %
Glyoxal	0-40	%
Water	0-60	%

SECTION 5: Safety Related Data

If the handling of this waste requires the use of special protective equipment, please explain. standard

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the waste approval package. \underline{MSDS}

SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

reacts weakly to acids, incompatible with strong oxidizing agents, strong bases, silver, copper, and iron salts

SECTION 8: Generator's Knowledge Documentation

Laboratory analysis of the hazardous waste characteristics, listed below, WAS NOT PERFORMED based upon the following generator knowledge:

TCLP Metals:	X
TCLP Volatiles:	$\overline{\mathbf{x}}$
TCLP Semi-Volatiles:	X
Reactivity:	X
Corrosivity:	X
Ignitability:	X

Authorized Signature:

SECTION 9: Generator's Certification

The information contained herein is based on 🗵 generator knowledge and/or 🔲 analytical data. I hereby certify that the above and
attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful
omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials
tested are representative of all materials described by this document.

Printed Name/Title: Juan-Almeguer	
CES USE ONLY (DO NOT WRITE IN THIS SPACE)	
Compliance Officer: Policy Thy	Process Facility Information: SPECIAL HANDLING - Stabalize with fly ash test ph prior to Shipment
Date: 1-3-07 Approved Rejected	

Approval Number: 1987

OL

2818606307

2

SE	CTION 10: Waste Receipt Classification Under 40 CFR 437
Is t	his material a wastewater or wastewater sludge? YES NO
lf"	Yes', complete this section.
PL	EASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.
Metal	ls Subcategory: Subpart A
	Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment
Oils S	Subcategory: Subpart B
	Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from petroleum sources Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources Interceptor wastes Off-specification fuels Underground storage remediation waste Tank clean-out from petroleum or oily sources Non-contact used glycols Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes
<u>Orga</u>	nics Subcategory: Subpart C
	Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources

(1)	If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.	
(2)	If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in exces of the values listed below, the waste should be classified in the metals subcategory.	
		ium: 0.2 mg/L
	Chromium: 8.9 mg/L	
	Copper: 4.9 mg/L	
	Nicke	l: 37.5 mg/L
(3)	If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.	
		Metals Subcategory
		Oils Subcategory
		Organics Subcategory

SECTION 11: Additional Instructions

If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.



Safety data sheet Glyoxal 40%

Revision date: 2004/08/11

Version: 1.1

Page: 1/7

(30037091/MDS GEN US/EN)

1. Substance/preparation and company identification

Company
BASF Corporation
100 Campus Drive
Florham Park, NJ 07932

24 Hour Emergency Response Information CHEMTREC: (800) 424-9300 BASF HOTLINE: (800) 832-HELP

4357

Molecular weight: Chemical family:

Synonyms:

58.00 g/mol aldehydes, in water

Ethanedial

2. Composition/information on ingredients

CAS Number 107-22-2 7732-18-5 50-00-0 107-21-1 Content (W/W) >= 39.5 - <= 40.5 % 60.0 % <= 100.0 PPM <= 1.5 % Chemical name glyoxal water Formaldehyde ethylene glycol

3. Hazard identification

Emergency overview

WARNING: CONTAINS MATERIAL WHICH CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE. CONTAINS MATERIAL WHICH CAN CAUSE KIDNEY DAMAGE. CAUSES RESPIRATORY TRACT IRRITATION.

CAUSES RESPIRATORY TRACT IRRITATION.

MAY ADVERSELY EFFECT THE DEVELOPING FETUS BASED ON ANIMAL DATA.

Use with local exhaust ventilation.

Wear NIOSH-certified chemical goggles.

Wear protective clothing.

Eye wash fountains and safety showers must be easily accessible.

Wear full face shield if splashing hazard exists.

Wear a NIOSH-certified (or equivalent) organic vapour respirator.

Potential health effects

Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Medical conditions aggravated by overexposure:

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.

See MSDS section 11 - Toxicological information.

Potential environmental effects

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Safety data sheet

Glyoxal 40%

Version: 1.1

Revision date: 2004/08/11

Page: 2/7

(30037091/MDS GEN US/EN)

4. First-aid measures

General advice:

Remove contaminated clothing.

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Wash affected areas thoroughly with soap and water. Remove contaminated clothing. Wash soiled clothing immediately. If irritation develops, seek medical attention.

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical attention.

If swallowed:

Rinse mouth and then drink plenty of water. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

5. Fire-fighting measures

Flash point:

Autoignition:

Not inflammable.

(DIN 51794)

Suitable extinguishing media:

water, foam, dry extinguishing media, carbon dioxide

Hazards during fire-fighting:

No particular hazards known.

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

approx. 285 °C

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

NFPA Hazard codes:

Health: 2

Fire: 0

Reactivity: 0

Special:

6. Accidental release measures

Personal precautions:

Avoid contact with the skin, eyes and clothing.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.



Safety data sheet Glyoxal 40%

Revision date: 2004/08/11

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Version: 1.1

(30037091/MDS GEN US/EN)

Substance/product is RCRA hazardous due to its properties.

Cleanup:

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

7. Handling and storage

Handling

General advice:

Ensure thorough ventilation of stores and work areas.

Storage

General advice:

Protect from air.

Keep container tightly closed.

Storage stability:

Storage duration: 6 Months
May yellow after lengthy storage.

8. Exposure controls and personal protection

Components with workplace control parameters

glyoxal

ACGIH

TWA value 0.1 mg/m3 Vapor and aerosol, inhalable

fraction

Formaldehyde

OSHA

TWA value 0.75 ppm ; STEL value 2 ppm ; OSHA_ACT

0.5 ppm;

ACGIH

CLV 0.3 ppm ;

ethylene glycol

ACGIH

CLV 100 mg/m3 aerosol;

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions. Wear a NIOSH-certified (or equivalent) organic vapour respirator.

Hand protection:

chloroprene rubber (Neoprene), nitrile rubber (Buna N), polyvinylchloride (Pylox)



Safety data sheet Glyoxal 40%

Revision date: 2004/08/11

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Version: 1.1

(30037091/MDS GEN US/EN)

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

General safety and hygiene measures:

Work place should be equipped with a shower and an eye wash. Wear protective clothing as necessary to prevent contact.

9. Physical and chemical properties

Odour:

faint odour

Colour:

colourless to yellow

pH value:

2 - 3.5

Melting point:

-14.00 °C

(400 g/l)

melting range:

-50 - -15 °C 103.6 °C

(OECD Guideline 102) (1,013 hPa) (Directive 92/69/EEC, A.2)

Boiling point: Vapour pressure:

20.2 hPa 106.7 hPa

(20 °C) (Directive 92/69/EEC, A.4)

Density:

approx. 1.27 g/cm3

(50 °C) (Directive 92/69/EEC, A.4) (20 °C) (Directive 92/69/EEC, A.3)

Partitioning coefficient noctanol/water (log Pow): -1.15

(approx. 23 °C) (OECD Guideline 107)

Viscosity, dynamic:

8 mPa.s

(20°C)

Solubility in water:

(approx. 20 °C) miscible

10. Stability and reactivity

Substances to avoid:

No data available.

Hazardous reactions:

The product is chemically stable.

Corrosion to metals:

No corrosive effect on metal.

11. Toxicological information

Acute toxicity

Oral:

LD50/rat: 2,000 - 5,000 mg/kg

Moderately toxic.

inhalation:

LC50/rat: 2.44 mg/l / 4 h

An aerosol was tested.

Inhalation-risk test (IRT): No mortality within 8 hours as shown in animal studies. The inhalation of a highly saturated vapor-air mixture represents no acute hazard.

Dermal:

LD50/rat: > 2,000 mg/kg

Skin irritation:



Safety data sheet Glyoxal 40%

Revision date: 2004/08/11

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(30037091/MDS GEN US/EN)

rabbit: non-irritant (OECD Guideline 404) The European Union (EU) has classified this substance with 'Irritating to skin' (R38).

Eye irritation:

rabbit: Nonirritating. (OECD Guideline 405)

Sensitization:

Guinea pig maximization test/: Caused sensitization in animal studies.

Chronic toxicity

Genetic toxicity:

The substance was mutagenic in various test systems with microorganisms, mammalian cell culture and mammals.

12. Ecological information

Environmental fate and transport

Biodegradation:

Test method:

OECD 303A; ISO 11733; 92/69 EEC,V, C.10

Method of analysis:

Degree of elimination:

DOC reduction

> 70 %

Test method:

OECD 301 A (new version) (aerobic), activated sludge, domestic

Method of analysis: Degree of elimination: DOC reduction 90 - 100 % (28 d)

Evaluation:

Easily eliminated from water.

Readily biodegradable (according to OECD criteria).

Chemical oxygen demand (COD):

350 mg/g

Biochemical oxygen demand (BOD):

Incubation period 5.0 d: 175 mg/g

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Environmental toxicity

Acute and prolonged toxicity to fish:

DIN 38412 Part 15 golden orfe/LC50 (96 h): > 460 - < 680 mg/l

Nominal concentration.

Acute toxicity to aquatic invertebrates:

Directive 79/831/EEC Daphnia magna/EC50 (48 h): 404 mg/l

Nominal concentration.

Toxicity to aquatic plants:

OECD Guideline 201 green algae/EC50 (72 h): > 100 mg/l

Nominal concentration.

Toxicity to microorganisms:

DIN 38412 Part 8 bacterium/EC50 (16 h): 102 mg/l



Safety data sheet

Glyoxal 40% Revision date: 2004/08/11

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(30037091/MDS GEN US/EN)

Other ecotoxicological advice:

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

13. Disposal considerations

Waste disposal of substance:

Do not discharge into waterways or sewer systems without proper authorization. Dispose of in a RCRA-licensed facility.

Contaminated packaging:

Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. RCRA empty containers may be landfilled at a licensed facility; other containers must be disposed of in a RCRA licensed facility. If containers are not empty, they must be disposed of in a RCRA-licensed facility.

14. Transport information

Reference Bill of Lading

15. Regulatory information

Federal Regulations

Registration status:

TSCA, US

released / listed

OSHA hazard category:

ACGIH TLV established, Sensitizer, Chronic target organ effects reported,

Acute target organ effects reported

CERCLA RQ: 5,000 lb

SARA hazard categories (EPCRA 311/312): Acute, Chronic

SARA 313:

CAS Number 107-21-1

Chemical name ethylene glycol

State regulations

State RTK

CAS Number 50-00-0 107-21-1

Chemical name

Formaldehyde ethylene glycol State RTK MA, NJ, PA MA, NJ, PA

16. Other information

HMIS III rating

Health: 2

Flammability: 0

Physical hazard: 0

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

BASF Corporation

BASF

HELPING MAKE PRODUCTS BETTER™

Safety data sheet Glyoxal 40%

Revision date: 2004/08/11

Version: 1.1

Page: 7/7

(30037091/MDS GEN US/EN)

Local contact information PROD_STEW_CA_CP_CZ@BASF.COM +1 973 426 4670

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY, BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE, NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY BASE HEREUNDER ARE GIVEN GRATIS AND BASE ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK. **END OF DATA SHEET**

Dana Carter

From: Sent:

Jodi A Visco [jodi.visco@basf.com] Tuesday, December 19, 2006 7:46 AM

To:

dcarter@cesenvironmental.com

Cc:

Willa A Alexander

Subject:

RE: Glyoxal 40% MSDS question

Dear Dana,

The statement on the MSDS refers to the fact that the pH for the product can range from 2.0 - 3.5. Since the RCRA D002 (characteristically hazardous due to corrosivity) definition is a pH of < or = 2.0, there may be some batches of the product that could be classified as RCRA hazardous due to corrosivity (when the pH of the batch is 2.0). Most of the time, the pH is above 2.0 and the product would not be considered RCRA hazardous due to corrosivity. The statement on the MSDS will be updated accordingly.

Let me know if you have further questions.

Regards. Jodi Jodi A Visco Manager Product Stewardship

Phone: 973 245 6124 Fax: 973 245 6707

E-mail: jodi.visco@basf.com

BASF Corporation 100 Campus Drive

Florham Park, NJ 07932

BASF - The Chemical Company

Willa A Alexande r/NTL/FL To ORHAM-PA RK/BASF-Visco/NLE/FLORHAM-PARK/BASF-CORP /BASF@BASF-CORP CORP/BAS <dcarter@cesenvironmental.com> 12/19/20 06 07:43 RE: Glyoxal 40% MSDS question (Document link: Jodi A Visco) ΜA

Forwarded by Willa Alexander / BASF Product Directory Service / (973) 245-6324

> "Dana Carter"

<pre><dcarter @cesenvi="" pre="" ronmenta<=""></dcarter></pre>	To "'Willa A Alexander'" <willa.alexander@basf.com></willa.alexander@basf.com>
1.com>	cc
12/18/20 06 04:16 PM	Subject RE: Glyoxal 40% MSDS question
Please respond to <dcarter @cesenvi="" l.com="" ronmenta=""></dcarter>	

Hello -

I am still waiting on an answer concerning this product. I spoke with someone who was getting more information but that was over a week ago. Please advise.

Thanks

Dana Carter, Account Manager CES Environmental Services, Inc. Office: 713-676-1460

Fax: 713-676-1676 Cell: 713-748-9804

dcarter@cesenvironmental.com

----Original Message----

From: Willa A Alexander [mailto:willa.alexander@basf.com]

Sent: Wednesday, November 29, 2006 11:26 AM

To: Jodi A Visco

Cc: dcarter@cesenvironmental.com

Subject: Re: Glyoxal 40% MSDS question

Please respond to <dcarter @cesenvi ronmenta 1.com> Product: Glyoxal 40%

Question: Under Section 6, there is a statement that says "Substance/product is RCRA hazardous due to its properties." I need to know why this product would be considered hazardous. From the other information on the msds, it does not appear this product is hazardous in this state.

I am with CES Environmental Services, Inc. in Houston, TX and need this information to dispose of the substance properly.

Please call me at 713-748-9804 or you may return my email.

Thank you,

Dana

Dana Carter, Account Manager

CES Environmental Services, Inc.

Office: 713-676-1460

Fax: 713-676-1676

Cell: 713-748-9804

dcarter@cesenvironmental.com

(See attached file: C.htm)



pH: 3-12

Waste Pre-Acceptance/Approval Letter

Date 8/22/2008

Dear Adrian Randle

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2950

Expiration Date 8/22/2010

Generator: Green Earth Fuels LLC

Address: 550 Clinton Drive

Galena Park, TX 77547

Waste Information

Name of Waste: high alcohol wastewater

TCEQ Waste Code #: 00081011

Container Type:

Detailed Description of Process Generating Waste:

wastewater from biodiesel production

Color: varies Odor: alcohol

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

std

If you are any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Safrices, Inc.





4904 Griggs Road, Houston, TX 77021 Phone: (713) 676-1460 Fax: (713) 676-1676

http://www.cesenvironmental.com
TCEQ Industrial Solid Waste Permit Number: 30948

	U.S.	EPA ID Numb	er: TXD00895	0461 IS	WR Numbe	r: 30900			_	
SECTION 1: Gener	ator Informat	ion								
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SECTION 2: Billing Company: Address:	Information -	I sa Techn	me as Abov	<u>e</u>		· · · · · · · · · · · · · · · · · · ·				
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SECTION 3: General	al Description	of the Wast	e							
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Does this material	contain any p	ara substitu	ted phenoli	c compound	ds?		Yes 🔰	No		
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2873	2874	2876	2879	2891	2892	2893	2896	2899	2	911
3312	4953	4959	9511							
Layers:	Single-phas	e 🗆	Multi-pha	se						
Container Type:	☐ Drum	☐ Tote	▼ Truc	k 🗌 Oth	er (explair	1)				
Frequency: 🔀 W	eekly 🗶 Mo	onthly 🔲 Y	rearly 🗌	One-Time						
Quantity:										

Is this a USEPA "Hazardous Waste" per 40CFR 261.3? If "Yes", then please complete, sign and date the Underlying Haza	Yes rdous Constituent	No s Form attached hereto			
If "Yes", Is it: D001 (Ignitable) D002 (Cor Characteristic for Toxic Metals: D004 D005	·	D003 (Reactive) D007 D008	□ D009		
		□ 5007 □ 5008			
Characteristic for Toxic Organics: D012 thru D043 (please list a					
Is this an "F" or "K" Listed waste or mixed with one? If "Yes", then please list ALL applicable codes:	☐ Yes	Ж No			
Is this a commercial product or spill cleanup that would carry 40 CFR 261.33(e) or (f)?	a "U" or "P" was No	te code under			
Texas State Waste Code Number:	6 1011	Com	satib	Clique	ohel exempli
Proper US DOT Shipping Name: Class: UN/NA: PG:	ea/Non	DIT Ray	-	NW(a)c	whole exemption
11/492	11	· · · / · ·	na		
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785-F-150 3-12 NA	} mg/l	M mg/l	(3)	%	
Oil & Grease TOC	Zinc mg/l	Copper mg/l	Nicl	mg/l	
SECTION 4: Physical and Chemical Data			·· //·		
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SECTION 5	: Safety Relate	ed Data			
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CECTION 6	. Assaabad C	onantina Daawa			
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TCLP Volat	iles:				
TCLP Semi	-Volatiles:		.\ a		
Reactivity:			1118		
Corrosivity	':		141.		
Ignitability					
SECTION 9:	Waste Receipt	Classification Un	der 40 CFR 437 (Prtainir	ng to Pre-Treatment Requ	irements for Centralized Waste Treatmer
Facilities)					
	Is this materia	ıl a wastewater o	r wastewater sludge?		☐ YES ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO ☐ NO
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Metals Sub	<u>category</u> : Subp	art A			
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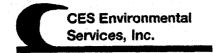
Interceptor wastes
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Underground storage remediation waste
☐ Tank clean-out from petroleum or oily sources
 ✓ Non-contact used glycols ✓ Aqueous and oil mixtures from parts cleaning operations
Mastewater from oil bearing paint washes Wastewater from oil bearing paint washes
Wastewater from on searing paint wasnes
Organics Subcategory : Subpart C Landfill leachate
Contaminated groundwater clean-up from non-petroleum sources
Solvent-bearing wastes
Off-specification organic product
Still bottoms
Byproduct waste glycol
Wastewater from paint washes
Wastewater from adhesives and/or epoxies formulation
Wastewater from organic chemical product operations
Tank clean-out from organic, non-petroleum sources
(1)
If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)
(2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in
excess of the values listed below, the waste should be classified in the metals subcategory.
Cadmium: 0.2 mg/L
Chromium: 8.9 mg/L
5
Copper: 4.9 mg/L
Nickel: 37.5 mg/L
(3)
If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper,
or nickel above any of the values listed above, the waste should be classified in the organics subcategory.
Metals Subcategory
Oils Subcategory
Organics Subcategory
CECTION 40 Additional hydrocations
SECTION 10 Additional Instructions
If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.
SECTION 11: Generator's Certification
The information contained herein is based on generator knowledge and/or analytical data.
I hereby certify that the above and attached description is complete and accurate to the best of
my knowledge and ability to determine that no deliberate or willful omissions of compostion
properties exist and that all known or suspected hazards have been disclosed. I certify that the
materials tested are representative of all materials described by this document.
Authorized Signature: Date: 8/22/08
Tour Along of
Printed Name/Title: SESUS Y CONCOVETY
CES USE ONLY (DO NOT WRITE IN THIS SPACE)
Compliance Officer: Labburk Thy
Date: 8 - 22 - 08
Approval Number: 2950

PROCESS FACILITY INFORMATION (CES USE ONLY!!)

1.	Base Pricing (including freight):
	\$10.30 /gal
2.	Contamination Limits (maximum limit before surcharges apply):
	processed according to "Moderate-level Alcohol WW". No oil layer (must be <1%) Solids <3%
3.	Surcharge Pricing:
	No surcharge for TOC. Solido in exceso of 3% should be indicated by in-bound report. Pricing will be negotiated for solido when invoiced
4.	Special Testing Requirements:
	pH, Spin-Oila Solids - Cannot have oil
5.	Treatment and Handling Protocol:
	On Proceso to System!

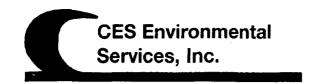
6. <u>Treated Wastewater Discharge Subcategory:</u>

Subcategory A	Subcategory B	Subcategory C	
		7	



PROCESS FACILITY INFORMATION (CES USE ONLY!!)

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To: Joy Baker, Al Longoria

Date: 08/21/08

Cc: Matt bowman, Gary Peterson, Prabhaker,

Matt Moser, Joe Camp

From: Miles Root Lab Memo: 08-146

Subject: Green Earth Frac Tank Testing and Summary

Ten frac tank samples from Green Earth have been evaluated for processing at CES or to an offsite location. Samples were taken by Durim who indicated that these were well taken samples that are representative of each of the tanks sampled.

Each tank is listed below along with my observations and recommendations. Two summary tables also include a quick overview of the tests and observations. The Frac Tank Summary table is just that. The Aqueous Treatment Summary table summarizes the expected parameters when the aqueous phase of the listed tanks is treated at CES.

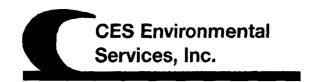
F01043 is an aqueous tank with just a trace of oil. It is dark amber in appearance, has a pH of 11 and a flash point of 85 deg F, which is due to the presence of methanol. A titration shows 0.56 wt% NaOH which accounts for the high pH and is also a component of the biodiesel production process. The TOC of this water is 182,000 ppm. This material is recommended to be moved to System 1.

F02132 is very similar in appearance and quality to F01043 above. It has a pH of 11 and a TOC of 271,000 ppm. This material is recommended to be moved to System 1.

F06052 is very similar in appearance and quality to both F01043 and F02132 above. It has a pH of 11 and TOC of 147,100 ppm. This material is recommended to be moved to System 1.

F02058 is an aqueous sample with a trace of oil with a pH of 7, a flash point less than 90 deg F and TOC of 124,800. This material is recommended to be moved to System 1.

F06037 is an aqueous sample with a 0.5% oil layer which is more like fatty acids. The material has a pH of 7, a flash point between 105 and 110 deg F and TOC of 128,300. This material is recommended to be moved to System 1. Drawing off the bottom of this frac tank will produce material with no oil, but the last trailer of material may have much greater oil content. This last trailer will need to be checked for percent oil layer to insure it will pass System 1 checks for oil layers.



F04024 is a slush consistency sample that contains approximately 10% oil and 90% aqueous material. This slush can be heated to produce a liquid matrix and when allowed to cool will reform into slush. The resulting top oil from heating can be mixed with our black oil but when allowed to cool, the resulting blend has a slight amount of waxy looking oil in the otherwise liquid matrix. The top oil phase when separated out and allowed to cool becomes a solid. The flash point of this slush is less than 95 deg F. I recommend a blend of at least 2:1 black oil: slush oil. For a 20,000 gallon frac tank we will produce no more than 2000 gallons of oil. A heated blend will have no issues. If we can market a fuel product that may contain a small amount of waxy oils, then we should consider this option. If not, then it is not a good candidate for System 1 or for CES.

F06044 is an aqueous sample with a 3% oil layer and 3% emulsion layer. This material has a pH of 7. This oil layer mixes with black oil with no issues. The emulsion can be separated out with careful heating. The resulting water will have high TOC and can be sent to System 1 under the alcohol exemption for the low flash point that it will have.

F06059 is similar to F06044 above. This is an aqueous sample with a 9% oil layer and 12% emulsion. The oil mixes with our black oil without issues. A treated water sample of a 50/50 mix of both F06044 and F06059 shows a very high TOC of 151,050 ppm with low metals. The water resulting from heat treating will need to be sent to System 1.

F06026 is an aqueous sample with an oil layer of less than 0.5%. It appears to be wash water. This material has a pH of 6 and a flash point greater than 140 deg F. This water can be treated at CES with resulting acceptable metals and TOC in the 12,000 range. This material is recommended to be brought to CES for standard water treat and discharge.

F06087 is an aqueous sample very similar to F06026 above. It also appears to be wash water. This material has an oil layer less than 0.5%, a pH of 6 and a flash point greater than 140 deg F. A 50/50 mix of tanks F06026 and F06087 was treated with our standard water treat. The resulting water has a TOC of 12,260 ppm and acceptable metals. This material is recommended to be brought to CES for standard water treat and discharge.

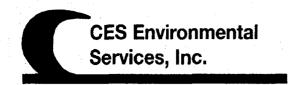
Operations will play a key role in determining when and how the tanks and trailers necessary for this job are available. Material requiring heating and phase separation in our oil facility will total over 40,000 gallons and possibly 60,000 gallons.

The two tables below summarize the observations and data for the above frac tank samples.



		Green Ear	th Frac T	ank Summary		1	; ;
				Flash Point	!	Black Oil	System 1
Frac Tank	Aqueous/Organic	Oil, Vol%	рН	Deg F	TOC, ppm	Suitability	Candidate
F01043	Aqueous	Trace	11	85	182,000	No	Yes
F02132	Aqueous	Trace	11	85	271,000	No	Yes
F06052	Aqueous	Trace	11	90	147,100	No	Yes
F02058	Aqueous	Trace	7	90	124,800	No	Yes
F06037	Aqueous	0.5	7	105-110	128,300	No	Yes
F04024	Organic Slush	10	7	95	196900	Possible	No
F06044	Aqueous	3	7	N/A	244700	Yes	No
F06059	Aqueous	9	7	N/A	147500	Yes	No
F06026	Aqueous	<0.5	6	>140	13,870	No	No
F06087	Aqueous	<0.5	6	>140	16,560	No	No

Aqı	eous Treatment Sur	mmary
	Frac Tank	Frac Tank
Treated Water	F06026 + F06087	F06044 + F06059
TOC, ppm	12,260	151,050
Metals, ppm		
Ni	0.461	0.231
Zn	0.256	0.074
Cu	0.097	0.288
Cd	0.125	0.064
Phenols, ppm	1	0



Waste Pre-Acceptance/Approval Letter

Date 8/22/2008

Dear Adrian Randle

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2951

Expiration Date 8/22/2010

Generator: Green Earth Fuels LLC

Address: 550 Clinton Drive

Galena Park, TX 77547

Waste Information

Name of Waste: oily emulsion TCEQ Waste Code #: 00081011

Container Type:

Detailed Description of Process Generating Waste: oily emulsion generated fro biodiesel production process

Color: varies

Odor: hydrocarbon and alcoh pH: 3-12

Physical State:

Incompatibilities: oxidizers

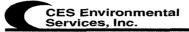
Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

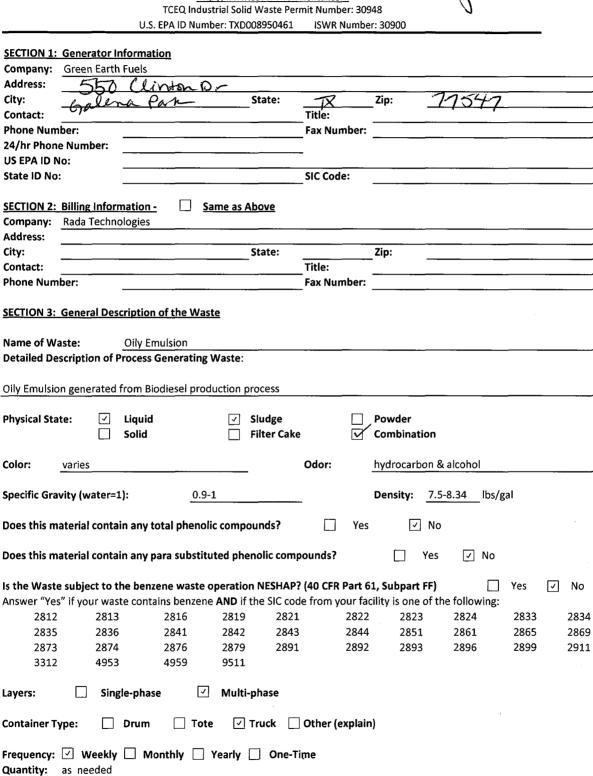
Thank you,

Matt Bowman, President CES Environmental Services, Inc.



4904 Griggs Road, Houston, TX 77021

Phone: (713) 676-1460 Fax: (713) 676-1676 http://www.cesenvironmental.com

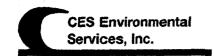


Is this a USEPA "Hazardou If "Yes", then please comp If "Yes", Is it: Characteristic for Toxic Me	lete, sign and date the Un 0001 (Ignitable) etals: D00	derlying Hazar ☐ D002 (Corr 4 ☐ D005 0 ☐ D011	osive) [nts Form atta		□ D009		
Is this an "F" or "K" Listed If "Yes", then please list		e?	☐ Yes		No		_	
Is this a commercial produ 40 CFR 261.33(e) or (f)? If "Yes", then please list			ı "U" or "P" w a No 	ste code un	der			
Texas State Waste Code N		00081011	-11 1	-4° ~			per 49	ICFR 173.154
Proper US DOT Shipping N Class: NA L	ame: NON	G:	NO 007	RQ:	ral m	Aterial	(6)(1)	5.0)
			<u> </u>	- ` `1	¥ 14			'('
Flash Point	pH		ve Sulfides	Reactive		Sol		
>85 deg F	3-12	NA NA	mg/l	NA Con	mg/l	10-80	%	
Oil & Grease >1500 mg/l	>10000 mg/l	NA	Zinc mg/l	NA Cop	mg/l	NA NA	mg/l	
SECTION 4: Physical and Cl COMP The waste consist Oils (some				CONCENT Ranges are a	RATOIN acceptable		UNITS or % %	·

CONCENTRATOIN	UNITS
Ranges are acceptable	or%
10-80	%
90-20	%
	
	Ranges are acceptable 10-80

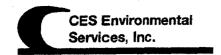
SECTION 5: Salety							
•	his waste requires the use of special protective equipment, please explain.						
standard PPE	· · · · · · · · · · · · · · · · · · ·						
	hed Supporting Documents						
List all documents, r	notes, data and/or analysis attached to this form as part of the waste						
approval package.	CES Analytical						
SECTION 7: Incomp							
	mpatibilities (if any):						
Oxidizers							
	rator's Knowledge Documentation						
	s of the hazardous waste characteristics, listed below, WAS NOT PERFORMED						
based upon the follo	llowing generator knowledge:						
TCLP Metals:	NA						
TCLP Volatiles:	NA						
TCLP Semi-Volatiles:							
Reactivity:	NA						
Corrosivity:	<u>NA</u>	NA					
Ignitability:	NA						
	Receipt Classification Under 40 CFR 437 (Prtaining to Pre-Treatment Requirements for Centralized Waste Tre	<u>eatment</u>					
Facilities)	7 VEC						
	material a wastewater or wastewater sludge? 'Yes', complete this section.						
шт	res , complete this section.						
PLEASE	E CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE.						
<u>Metals Subcategory</u> :	·						
	electroplating baths and/or sludges						
	finishing rinse water and sludges nate wastes						
=	llution control blow down water and sludges						
	anodizing solutions						
	ration wastewaters						
	liquid mercury						
	le-containing wastes greater than 136 mg/l						
	acids and bases with or without metals						
	ng, rinsing, and surface preparation solutions from electroplating or phosphating operations ory deburring wastewater						
	ne and acid solutions used to clean metal parts or equipment						
	e and acid solutions accurate clean metal parts of equipment						
Oils Subcategory: Su	ubpart B						
Used oil	pils						
✓ Oil-wate	ter emulsions or mixtures						
Lubricar							
☐ Coolant							
	minated groundwater clean-up from petroleum sources petroleum products						
	ll clean-up						
☐ Bilge wa	·						
	wash waters from petroleum sources						

Interceptor wastes
Off-specification fuels
Underground storage remediation waste
☐ Tank clean-out from petroleum or oily sources
☐ Non-contact used glycols ☐ Aqueous and all mixtures from parts cleaning enerations
 Aqueous and oil mixtures from parts cleaning operations Wastewater from oil bearing paint washes
Mastewater from on bearing paint wastes
Organics Subcategory: Subpart C Landfill leachate
Contaminated groundwater clean-up from non-petroleum sources
Solvent-bearing wastes
Off-specification organic product
☐ Still bottoms
☐ Byproduct waste glycol
Wastewater from paint washes
Wastewater from adhesives and/or epoxies formulation
Wastewater from organic chemical product operations
Tank clean-out from organic, non-petroleum sources
(1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in
excess of the values listed below, the waste should be classified in the metals subcategory.
Cadmium: 0.2 mg/L
Chromium: 8.9 mg/L
Copper: 4.9 mg/L
Nickel: 37.5 mg/L
If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory. Metals Subcategory Oils Subcategory Organics Subcategory
SECTION 10 Additional Instructions
If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.
SECTION 11: Generator's Certification The information contained herein is based on generator knowledge and/or analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of compostion properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.
Authorized Signature: Date: 8/22/08
Printed Name/Title: Sesus Hancarde
CES USE ONLY (DO NOT WRITE IN THIS SPACE)
Compliance Officer: Polymon Rejected Approval Number: 295



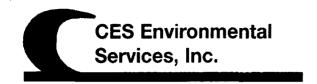
PROCESS FACILITY INFORMATION (CES USE ONLY!!)

1.	Base Pricing (including freight):					
	\$0.37 /gal					
2.	Contamination Limits (maximum limit before surcharges apply):					
	None					
3.	Surcharge Pricing:					
	None					
4.	Special Testing Requirements:					
	Waster going to system (earnot have oils,					
5. 「	Treatment and Handling Protocol:					
	(1) Send to heat tank and took use emulsion prease to separate oil layer@Oil removed should be blended w/black oil in minimum ratio of 2:1 3 process water to system 1 Treated Wastewater Discharge Subcategory:					
ا	3 Prous water to System 1 Treated Wastewater Discharge Subcategory:					
	Subcategory A Subcategory B Subcategory C					



PROCESS FACILITY INFORMATION (CES USE ONLY!!)

Tests for Prod	uct Recovered/Re	ecveled (II applicat	<u>ле).</u>		
Management f	or Product Recov	vered/Recycled (if a	applicable);		
Management f	or Product Recov	vered/Recycled (if a	applicable);		
Management f	or Product Recov	vered/Recycled (if a	applicable);		
Management f	or Product Recov	vered/Recycled (if a	applicable);		



Date: 08/21/08

To: Joy Baker, Al Longoria

Cc: Matt bowman, Gary Peterson, Prabhaker,

Matt Moser, Joe Camp

From: Miles Root Lab Memo: 08-146

Subject: Green Earth Frac Tank Testing and Summary

Ten frac tank samples from Green Earth have been evaluated for processing at CES or to an offsite location. Samples were taken by Durim who indicated that these were well taken samples that are representative of each of the tanks sampled.

Each tank is listed below along with my observations and recommendations. Two summary tables also include a quick overview of the tests and observations. The Frac Tank Summary table is just that. The Aqueous Treatment Summary table summarizes the expected parameters when the aqueous phase of the listed tanks is treated at CES.

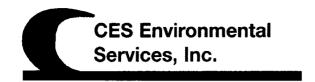
F01043 is an aqueous tank with just a trace of oil. It is dark amber in appearance, has a pH of 11 and a flash point of 85 deg F, which is due to the presence of methanol. A titration shows 0.56 wt% NaOH which accounts for the high pH and is also a component of the biodiesel production process. The TOC of this water is 182,000 ppm. This material is recommended to be moved to System 1.

F02132 is very similar in appearance and quality to F01043 above. It has a pH of 11 and a TOC of 271,000 ppm. This material is recommended to be moved to System 1.

F06052 is very similar in appearance and quality to both F01043 and F02132 above. It has a pH of 11 and TOC of 147,100 ppm. This material is recommended to be moved to System 1.

F02058 is an aqueous sample with a trace of oil with a pH of 7, a flash point less than 90 deg F and TOC of 124,800. This material is recommended to be moved to System 1.

F06037 is an aqueous sample with a 0.5% oil layer which is more like fatty acids. The material has a pH of 7, a flash point between 105 and 110 deg F and TOC of 128,300. This material is recommended to be moved to System 1. Drawing off the bottom of this frac tank will produce material with no oil, but the last trailer of material may have much greater oil content. This last trailer will need to be checked for percent oil layer to insure it will pass System 1 checks for oil layers.



F04024 is a slush consistency sample that contains approximately 10% oil and 90% aqueous material. This slush can be heated to produce a liquid matrix and when allowed to cool will reform into slush. The resulting top oil from heating can be mixed with our black oil but when allowed to cool, the resulting blend has a slight amount of waxy looking oil in the otherwise liquid matrix. The top oil phase when separated out and allowed to cool becomes a solid. The flash point of this slush is less than 95 deg F. I recommend a blend of at least 2:1 black oil: slush oil. For a 20,000 gallon frac tank we will produce no more than 2000 gallons of oil. A heated blend will have no issues. If we can market a fuel product that may contain a small amount of waxy oils, then we should consider this option. If not, then it is not a good candidate for System 1 or for CES.

F06044 is an aqueous sample with a 3% oil layer and 3% emulsion layer. This material has a pH of 7. This oil layer mixes with black oil with no issues. The emulsion can be separated out with careful heating. The resulting water will have high TOC and can be sent to System 1 under the alcohol exemption for the low flash point that it will have.

F06059 is similar to F06044 above. This is an aqueous sample with a 9% oil layer and 12% emulsion. The oil mixes with our black oil without issues. A treated water sample of a 50/50 mix of both F06044 and F06059 shows a very high TOC of 151,050 ppm with low metals. The water resulting from heat treating will need to be sent to System 1.

F06026 is an aqueous sample with an oil layer of less than 0.5%. It appears to be wash water. This material has a pH of 6 and a flash point greater than 140 deg F. This water can be treated at CES with resulting acceptable metals and TOC in the 12,000 range. This material is recommended to be brought to CES for standard water treat and discharge.

F06087 is an aqueous sample very similar to F06026 above. It also appears to be wash water. This material has an oil layer less than 0.5%, a pH of 6 and a flash point greater than 140 deg F. A 50/50 mix of tanks F06026 and F06087 was treated with our standard water treat. The resulting water has a TOC of 12,260 ppm and acceptable metals. This material is recommended to be brought to CES for standard water treat and discharge.

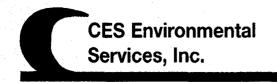
Operations will play a key role in determining when and how the tanks and trailers necessary for this job are available. Material requiring heating and phase separation in our oil facility will total over 40,000 gallons and possibly 60,000 gallons.

The two tables below summarize the observations and data for the above frac tank samples.



		Green Earth Frac Tank Summary			i !	i ! !	
				Flash Point	!	Black Oil	System 1
Frac Tank	Aqueous/Organic	Oil, Vol%	рН	Deg F	TOC, ppm	Suitability	Candidate
F01043	Aqueous	Trace	11	85	182,000	No	Yes
F02132	Aqueous	Trace	11	85	271,000	No	Yes
F06052	Aqueous	Trace	11	90	147,100	No	Yes
F02058	Aqueous	Trace	7	90	124,800	No	Yes
F06037	Aqueous	0.5	7	105-110	128,300	No	Yes
F04024	Organic Slush	10	7	95	196900	Possible	No
F06044	Aqueous	3	7	N/A	244700	Yes	No
F06059	Aqueous	9	7	N/A	147500	Yes	No
F06026	Aqueous	<0.5	6	>140	13,870	No	No
F06087	Aqueous	<0.5	6	>140	16,560	No	No

Aqueous Treatment Summary				
	Frac Tank			
Treated Water	F06026 + F06087	F06044 + F06059		
TOC, ppm	12,260	151,050		
Metals, ppm		 		
Ni	0.461	0.231		
Zn	0.256	0.074		
Cu	0.097	0.288		
Cd	0.125	0.064		
Phenols, ppm	1	0		



Waste Pre-Acceptance/Approval Letter

Date 8/22/2008

Dear Adrian Randle

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2952

Expiration Date 8/22/2010

Generator: Green Earth Fuels LLC

Address: 550 Clinton Drive

Galena Park, TX 77547

Waste Information

Name of Waste: moderate level alcohol wastewater

TCEQ Waste Code #: 00081011

Container Type:

Detailed Description of Process Generating Waste:

wastewater from biodiesel production

Color: various

Odor: mild

pH: 4-12

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.





U.S. EPA ID Number: TXD008950461

4904 Griggs Road, Houston, TX 77021
Phone: (713) 676-1460 Fax: (713) 676-1676
http://www.cesenvironmental.com
TCEQ Industrial Solid Waste Permit Number: 30948

ISWR Number: 30900



SECTION 1: Generator Information Company: Green Earth Fuels Address: City: State: 1R Zip: Contact: Title: Phone Number: **Fax Number:** 24/hr Phone Number: US EPA ID No: State ID No: SIC Code: **SECTION 2: Billing Information -**Same as Above Company: Rada Technologies Address: PO Box 1147 77588 City: Pearland State: ΤX Zip: Jesse Plancarte Title: Contact: **Phone Number:** (832) 257-6128 Fax Number: **SECTION 3: General Description of the Waste** Moderate - level Allohol Name of Waste: **Detailed Description of Process Generating Waste:** Wastewater from biodisel production Powder **Physical State:** Liquid Sludge Solid **Filter Cake** Combination Color: Odor: mild various Specific Gravity (water=1): 1 Density: 8.34 lbs/gal ✓ No Does this material contain any total phenolic compounds? Yes Does this material contain any para substituted phenolic compounds? ✓ No Is the Waste subject to the benzene waste operation NESHAP? (40 CFR Part 61, Subpart FF) Yes 7 No Answer "Yes" if your waste contains benzene AND if the SIC code from your facility is one of the following: 2824 2833 2834 2812 2813 2816 2819 2821 2822 2823 2835 2836 2841 2842 2843 2844 2851 2861 2865 2869 2873 2874 2876 2879 2891 2892 2893 2896 2899 2911 3312 4953 4959 9511 Layers: Single-phase Multi-phase ☐ Drum ☐ Tote ✓ Truck ☐ Other (explain) **Container Type:** Frequency:
Weekly
Monthly
Yearly
One-Time Quantity: as needed

Is this a USEPA "Hazardous Waste" per 40CFR 261.3?					
If "Yes", Is it: D001 (Ignitable) D002 (Cor Characteristic for Toxic Metals: D004 D005 D010 D011 Characteristic for Toxic Organics: D012 thru D043 (please list a	5 D006 D007 D008 D009				
Is this an "F" or "K" Listed waste or mixed with one? If "Yes", then please list ALL applicable codes:	☐ Yes ☑ No				
Is this a commercial product or spill cleanup that would carry a 40 CFR 261.33(e) or (f)?	a "U" or "P" waste code under No				
Texas State Waste Code Number: Proper US DOT Shipping Name: Non RCRA Non DOT rej	181011 mos Carett	ad)			
Class: Ta S UN/NA: Tra 1093 G:	na III rQ: na				
Flash Point pH React	ive Sulfides Reactive Cyanides Sol	ids			
785° 6 4-12 N/	7 mg/l N/A mg/l <3 °	%			
Oil & Grease TOC	Zinc / Copper Nic	kel			
1500 mg/1 710000 mg/1 N	A mg/l N/A mg/l N/A	mg/l			
SECTION 4: Physical and Chemical Data	· · · · · · · · · · · · · · · · · · ·				
COMPONENTS TABLE	CONCENTRATOIN	UNITS			
The waste consists of the following materials	Ranges are acceptable	or %			
Withand	Lag-	0).			
- Water	11-100	51			
- Glycory	- 45	/0-			
	<u> </u>	-			

If the hand	dling of this wa		es the use of	special protect	tive equipment	t, please exp	olain.	
List all doc	LP Volatiles: LP Semi-Volatiles: activity: rrosivity: iitability: TION 9: Waste Receipt Classification Under 40 CFR 437 (Prtaining to Pre-Treatment Requirements for Centralized Waste Treatment lilities) Is this material a wastewater or wastewater sludge? If 'Yes', complete this section. PLEASE CHECK THE APPROPRIATE BOX. IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE. Itals Subcategory: Subpart A Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sludges Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 mg/l Waste acids and bases with or without metals Cleaning, rinsing, and surface preparation solutions from electroplating or phosphating operations Vibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment Subcategory: Subpart B Used oils Uli-water emulsions or mixtures							
Please list	ALL incompat	ibilities (if a						
Laboratory	y analysis of th	ne hazardoi	us waste cha	racteristics, list	ed below, WA S	S NOT PERF	ORMED	
	tiles: -Volatiles: : /:	<i>b</i>	K					
SECTION 9: Facilities)	Is this mater	ial a wastev	vater or waste		ng to Pre-Treati	_	_	
	PLEASE CHE	CK THE APP	ROPRIATE BO	X. IF NO APPRO	PRIATE CATEGO	DRY, GO TO T	HE NEXT	PAGE.
	Spent electr Metal finish Chromate w Air pollutior Spent anodi Incineration Waste liquic Cyanide-cor Waste acids Cleaning, rir	oplating bat ing rinse wa astes control blo zing solution wastewated I mercury staining was and bases wasing, and su	ter and sludgo w down wate ns rs tes greater th vith or withou irface prepara itewater	es r and sludges an 136 mg/l t metals tion solutions fr		ng or phosph	nating ope	rations
Oils Subcat	Used oils Oil-water er Lubricants Coolants Contaminat Used petrol Oil spill clea	nulsions or r ed groundw eum produc n-up	ater clean-up	from petroleum ources	sources			

Interceptor wastes	
Off-specification fuels	
Underground storage remediation waste	
Tank clean-out from petroleum or oily sources	
Non-contact used glycols	
Aqueous and oil mixtures from parts cleaning operations	
Wastewater from oil bearing paint washes	
<u>Organics Subcategory</u> : Subpart C	
Landfill leachate	
Contaminated groundwater clean-up from non-petroleum sources	
Solvent-bearing wastes	
Off-specification organic product	
Still bottoms	
Byproduct waste glycol	
Wastewater from paint washes	
Wastewater from adhesives and/or epoxies formulation	
Wastewater from organic chemical product operations	
Tank clean-out from organic, non-petroleum sources	
If the waste contains oil and grease at or in excess of 100 mg/L, the waste	e should be classified in the oils subcategory.
(2)	
(2) If the waste contains oil and grease less than 100 mg/L, and has any of the	ne nollutants listed below in concentrations in
excess of the values listed below, the waste should be classified in the mo	
	etais subcategory.
Cadmium: 0.2 mg/L	
Chromium: 8.9 mg/L	
Copper: 4.9 mg/L	
Nickel: 37.5 mg/L	
If the waste contains oil and grease less than 100 mg/L, and does not hav or nickel above any of the values listed above, the waste should be classif Metals Subcategory Oils Subcategory Organics Subcategory	
SECTION 10 Additional Instructions	
If you cannot determine the correct subcategory in Section 9 and you did not furnish da	ata for the concentration of Cadmium, Chromium
Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a si will be prior to acceptance. The generator will be responsible for the cost of the analys	ample to determine these concentrations. This
SECTION 11: Generator's Certification	
	nd/or 🔲 analytical data.
ω	
I hereby certify that the above and attached description is complete and accurat	
my knowledge and ability to determine that no deliberate or willful omissions of	
properties exist and that all known or suspected hazards have been disclosed. I c	certify that the
materials tested are representative of all materials described by this document.	.1 .1
Authorized Signature:	Date: 8/22/08
Printed Name/Title: SESUS Mancarete	
CES USE ONLY (DO NOT WRITE IN THIS SPACE)	
()	
Compliance Officer:	
Date: 822-081 Approved Rejected	
Approval Number: 4057	

☐ Subcategory A

☐ Subcategory B

PROCESS FACILITY INFORMATION (CES USE ONLY)!!!

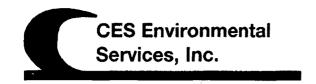
1. Base Pricing (including freight):
0.37 /gal
2. Contamination Limit (maximum limit before surchages apply):
No Max limit for TOC. < 3% solido No oil layer. If oil layer needs to be changed to
profile for alvohol WW w/ oil
3. Surcharge Pricing:
None for TO(. >3% Solid mark on in-bound load report. Pricing will be negotiated for
solids surcharge when invoiced.
4. Special Testing Requirements:
Make sure it this material processes to WW the flosh point of the freaked material mixed of then wwis > 140° F.
5. Treatment and Handling Protocol:
Olf less than 125,000 TOC: prefer to process at CSS and treat per standard method. Olf greater than 125,000 TOC, process to System!
6. Treated Wastewater Discharge Subcategory:

☑ Subcategory C



PROCESS FACILITY INFORMATION (CES USE ONLY)!!!

7. Tests for Product	t Recovered/Recycle	d (if applicable):		
8. Management for	Product Recovered,	/Recycled (if appli	cable)	
8. Management for	Product Recovered	/Recycled (if applic	cable)	
8. Management for	Product Recovered	/Recycled (if applic	cable)	
8. Management for	Product Recovered,	/Recycled (if appli	cable)	
8. Management for	Product Recovered	/Recycled (if appli	cable)	
8. Management for	Product Recovered,	/Recycled (if appli	cable)	



4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1676

To: Joy Baker, Al Longoria

Cc: Matt bowman, Gary Peterson, Prabhaker,

Matt Moser, Joe Camp

From: Miles Root

Lab Memo: 08-146

Date: 08/21/08

Subject: Green Earth Frac Tank Testing and Summary

Ten frac tank samples from Green Earth have been evaluated for processing at CES or to an offsite location. Samples were taken by Durim who indicated that these were well taken samples that are representative of each of the tanks sampled.

Each tank is listed below along with my observations and recommendations. Two summary tables also include a quick overview of the tests and observations. The Frac Tank Summary table is just that. The Aqueous Treatment Summary table summarizes the expected parameters when the aqueous phase of the listed tanks is treated at CES.

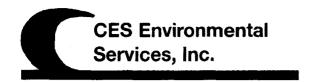
F01043 is an aqueous tank with just a trace of oil. It is dark amber in appearance, has a pH of 11 and a flash point of 85 deg F, which is due to the presence of methanol. A titration shows 0.56 wt% NaOH which accounts for the high pH and is also a component of the biodiesel production process. The TOC of this water is 182,000 ppm. This material is recommended to be moved to System 1.

F02132 is very similar in appearance and quality to F01043 above. It has a pH of 11 and a TOC of 271,000 ppm. This material is recommended to be moved to System 1.

F06052 is very similar in appearance and quality to both F01043 and F02132 above. It has a pH of 11 and TOC of 147,100 ppm. This material is recommended to be moved to System 1.

F02058 is an aqueous sample with a trace of oil with a pH of 7, a flash point less than 90 deg F and TOC of 124,800. This material is recommended to be moved to System 1.

F06037 is an aqueous sample with a 0.5% oil layer which is more like fatty acids. The material has a pH of 7, a flash point between 105 and 110 deg F and TOC of 128,300. This material is recommended to be moved to System 1. Drawing off the bottom of this frac tank will produce material with no oil, but the last trailer of material may have much greater oil content. This last trailer will need to be checked for percent oil layer to insure it will pass System 1 checks for oil layers.



4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1676

F04024 is a slush consistency sample that contains approximately 10% oil and 90% aqueous material. This slush can be heated to produce a liquid matrix and when allowed to cool will reform into slush. The resulting top oil from heating can be mixed with our black oil but when allowed to cool, the resulting blend has a slight amount of waxy looking oil in the otherwise liquid matrix. The top oil phase when separated out and allowed to cool becomes a solid. The flash point of this slush is less than 95 deg F. I recommend a blend of at least 2:1 black oil: slush oil. For a 20,000 gallon frac tank we will produce no more than 2000 gallons of oil. A heated blend will have no issues. If we can market a fuel product that may contain a small amount of waxy oils, then we should consider this option. If not, then it is not a good candidate for System 1 or for CES.

F06044 is an aqueous sample with a 3% oil layer and 3% emulsion layer. This material has a pH of 7. This oil layer mixes with black oil with no issues. The emulsion can be separated out with careful heating. The resulting water will have high TOC and can be sent to System 1 under the alcohol exemption for the low flash point that it will have.

F06059 is similar to F06044 above. This is an aqueous sample with a 9% oil layer and 12% emulsion. The oil mixes with our black oil without issues. A treated water sample of a 50/50 mix of both F06044 and F06059 shows a very high TOC of 151,050 ppm with low metals. The water resulting from heat treating will need to be sent to System 1.

F06026 is an aqueous sample with an oil layer of less than 0.5%. It appears to be wash water. This material has a pH of 6 and a flash point greater than 140 deg F. This water can be treated at CES with resulting acceptable metals and TOC in the 12,000 range. This material is recommended to be brought to CES for standard water treat and discharge.

F06087 is an aqueous sample very similar to F06026 above. It also appears to be wash water. This material has an oil layer less than 0.5%, a pH of 6 and a flash point greater than 140 deg F. A 50/50 mix of tanks F06026 and F06087 was treated with our standard water treat. The resulting water has a TOC of 12,260 ppm and acceptable metals. This material is recommended to be brought to CES for standard water treat and discharge.

Operations will play a key role in determining when and how the tanks and trailers necessary for this job are available. Material requiring heating and phase separation in our oil facility will total over 40,000 gallons and possibly 60,000 gallons.

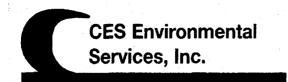
The two tables below summarize the observations and data for the above frac tank samples.



4904 Griggs Road Houston, TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1676

		Green Ear	th Frac T	Tank Summary			1 1
	1 !			Flash Point	!	Black Oil	System 1
Frac Tank	Aqueous/Organic	Oil, Vol%	рН	Deg F	TOC, ppm	Suitability	Candidate
F01043	Aqueous	Trace	11	85	182,000	No	Yes
F02132	Aqueous	Trace	11	85	271,000	No	Yes
F06052	Aqueous	Trace	11	90	147,100	No	Yes
F02058	Aqueous	Trace	7	90	124,800	No	Yes
F06037	Aqueous	0.5	7	105-110	128,300	No	Yes
F04024	Organic Slush	10	7	95	196900	Possible	No
F06044	Aqueous	3	7	N/A	244700	Yes	No
F06059	Aqueous	9	7	N/A	147500	Yes	No
F06026	Aqueous	<0.5	6	>140	13,870	No	No
F06087	Aqueous	<0.5	6	>140	16,560	No	No

Aqueous Treatment Summary					
	Frac Tank	Frac Tank			
Treated Water	F06026 + F06087	F06044 + F06059			
TOC, ppm	12,260	151,050			
Metals, ppm					
Ni	0.461	0.231			
Zn	0.256	0.074			
Cu	0.097	0.288			
Cd	0.125	0.064			
Phenols, ppm	1	0			



Waste Pre-Acceptance/Approval Letter

Date 8/25/2008

Dear David Shaw

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2955

Expiration Date 8/25/2010

Generator: Koppers, Inc. Address: PO Box 189

Somerville, TX 77879

Waste Information

Name of Waste: Lead acid batteries TCEQ Waste Code #: UNIV309H

Container Type:

pallet of 12-15 batteries

Detailed Description of Process Generating Waste:

spent lead acid batteries

Color: various

Odor: none

pH: na

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

level d

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.

Quantity: 1 pallet of about 12-15 batteries



4904 Griggs Road, Houston, TX 77021
Phone: (713) 676-1460 Fax: (713) 676-1676
http://www.cesenvironmental.com
TCEQ Industrial Solid Waste Permit Number: 30948

120

U.S. EPA ID Number: TXD008950461 ISWR Number: **SECTION 1: Generator Information** Company: Koppers, Inc. Address: PO Box 189 City: Somerville 77879 State: Zip: Texas David R. Lauter Jr. Safety Health & Environmental Coordinator Contact: Title: **Phone Number:** (979) 596-1321 979-596-2719 Fax Number: 24/hr Phone Number: 936-520-9597 US EPA ID No: TXR000003780 State ID No: 83899 SIC Code: N/A **SECTION 2: Billing Information -**Same as Above Koppers, Inc. Company: Address: PO Box 189 City: Sommerville State: Texas Zip: 77879 David Shaw Contact: Title: **Phone Number:** (979) 596-1321 Fax Number: **SECTION 3: General Description of the Waste** Name of Waste: Lead Acid Batteries **Detailed Description of Process Generating Waste:** Spent Lead Acid Batteries **Physical State:** Liquid ☐ Sludge Powder Solid Filter Cake Combination v Color: Odor: various None Specific Gravity (water=1): N/A Density: N/A lbs/gal Does this material contain any total phenolic compounds? ✓ No Yes Does this material contain any para substituted phenolic compounds? Yes ☑ No Is the Waste subject to the benzene waste operation NESHAP? (40 CFR Part 61, Subpart FF) Yes ✓ No Answer "Yes" if your waste contains benzene AND if the SIC code from your facility is one of the following: 2822 2823 2824 2833 2834 2812 2813 2816 2819 2821 2869 2835 2836 2841 2842 2843 2844 2851 2861 2865 2911 2873 2874 2876 2879 2891 2892 2893 2896 2899 3312 4953 4959 9511 Pricing 50\$/13 Trans 7000/41 PFSC Layers: Single-phase Multi-phase ☐ Drum □ Tote ☐ Truck ☑ Other (explain) Frequency:
Weekly Monthly Vearly One-Time

Is this a USEPA "Hazard If "Yes", then please co	lous Waste" per 40CFR mplete, sign and date th		✓ Ye erdous Constitue		No ached hereto	e en	**
If "Yes", Is it:		☑ D002 (Con D004 ☐ D002 D010 ☐ D01	5 □ D00] D003 (Rea 6 D007		□ D009	
Characteristic for Toxic	_		-				
is this an "F" or "K" List If "Yes", then please	ed waste or mixed wit list ALL applicable code	· ·	☐ Ye	s 2	No		
is this a commercial pro 40 CFR 261.33(e) or (f)? If "Yes", then please	· · · _] Yes [a "U" or "P" w	aste code ur	nder	·····	
Texas State Waste Cod		UNIV3091	·	·	· .		
Proper US DOT Shippin	·	ies, wet, filled w			1-		
Class:	8 UN/NA: UN27	94PG:	101	_RQ:	N/A		
Flash Point	pH	React	ive Sulfides	Reactive	Cyanides	Solid	İs
N/A	N/A	0	mg/l	Ò	mg/i	80-100	%
Oil & Grease	Toc	<u> </u>	Zinc	Co	per	Nick	el
		7.		1 .			

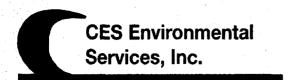
SECTION 4: Physical and Chemical Data

COMPONENTS TABLE	CONCENTRATOIN	JUNITS
The waste consists of the following materials	Ranges are acceptable	or %
Lead Acid Batteries	100	%
· · · · · · · · · · · · · · · · · · ·		
4		
		•

SECTION 5: Safety Rel		and the second second	
If the handling of this v	vaste requires the use of special protectiv	e equipment, please explain.	A*
Level D			
•			
SECTION 6: Attached	Supporting Documents		
List all documents, not	es, data and/or analysis attached to this f	orm as part of the waste	
approval package.	None		
	,		· ·
SECTION 7: Incompati	<u>bilities</u>	•	
Please list ALL incompa	tibilities (if any):		
None		<u> </u>	
SECTION 8: Generator	's Knowledge Documentation		
-···	the hazardous waste characteristics, listed	i below, WAS NOT PERFORMED	
based upon the following	ng generator knowledge:		
• •			
TCLP Metals:	x		•
TCLP Volatiles:	X	, ,	
TCLP Semi-Volatiles:	X		
	^ x		
Reactivity:		· · · · · · · · · · · · · · · · · · ·	
Corrosivity:	X		
Ignitability:	X		
	erial a wastewater or wastewater sludge? , complete this section.	☐ YES ☑ NO	
PLEASE CH	ECK THE APPROPRIATE BOX. IF NO APPROPR	NATE CATEGORY, GO TO THE NEXT PAGE.	
Metals Subcategory: Su		•	
, ,	roplating baths and/or sludges hing rinse water and sludges		
Chromate			
=	n control blow down water and sludges		
	lizing solutions		
	n wastewaters		•
☐ Waste liqu	d mercury		
☐ Cyanide-co	ntaining wastes greater than 136 mg/l		
	s and bases with or without metals		
🔲 Cleaning, ri	nsing, and surface preparation solutions from	n electroplating or phosphating operations	
	leburring wastewater		
Alkaline an	d acid solutions used to clean metal parts or	equipment	
	_		
Oils Subcategory : Subpo	irt B		
Used oils	mulsions or mixtures	•	
Uil-water e	muisions of mixtures		
☐ Coolants			
= '	ted groundwater clean-up from petroleum so	nurces	
	ted groundwater clean-up from petroleum so leum products	241 Cas	
☐ Oil spill cle			
☐ Bilge water	•		
	waters from petroleum sources		
☐ mise/wasi	Total Train postolicam sources		•

•	Interceptor wastes			
	Off-specification fuels			
	Underground storage remediation waste			
	Tank clean-out from petroleum or oily sources			
	Non-contact used glycols			
	Aqueous and oil mixtures from parts cleaning operations			
	Wastewater from oil bearing paint washes			
<u>Urganics :</u>	ubcategory: Subpart C			
	Landfill leachate			
	Contaminated groundwater clean-up from non-petroleum sources			
	Solvent-bearing wastes			
	Off-specification organic product			
	Still bottoms			
	Byproduct waste glycol			
	Wastewater from paint washes			
	☐ Wastewater from adhesives and/or epoxies formulation ☐ House the state of the s			
	Wastewater from organic chemical product operations			
	Tank clean-out from organic, non-petroleum sources			
(4)				
(1)				
	If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be class	sified in the	oils subcat	egory.
(a)				
(2)	Nest.			
	If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants list		concentra	tions in
	excess of the values listed below, the waste should be classified in the metals subcatego	ry.		
	Cadmium: 0.2 mg/L			
	Chromium: 8.9 mg/L			
	Copper: 4.9 mg/L			
•				
	Nickel: 37.5 mg/L			
(3)				
	If the waste contains oil and grease less than 100 mg/L, and does not have concentration or nickel above any of the values listed above, the waste should be classified in the orga Metals Subcategory Oils Subcategory Organics Subcategory			or male of proceeding
SECTION 1	Additional Instructions			
Copper, Ni will be prio	ot determine the correct subcategory in Section 9 and you did not furnish data for the concibel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determ to acceptance. The generator will be responsible for the cost of the analysis. 1: Generator's Certification			
		analytical da	ıta.	
hereby c	ertify that the above and attached description is complete and accurate to the best	of		
ny knowk	edge and ability to determine that no deliberate or willful omissions of compostion			
properties	exist and that all known or suspected hazards have been disclosed. I certify that the	<u>.</u>		
	ested are representative of all materials described by this opcument.			
ilacci iois	ested are representative of all materials described by this open ment.		,	1
Authorize	d Signature: Wave Laute Charles	te: <u>2</u>	3/25	108
Printed N	me/Title: David K. Lauter)r.			·
CES USE O	NLY (DO NOT WRITE IN THIS SPAÇÉ)	•		
	e Officer: Robbutana			
oate:	3-25-08			

2956 Infineum



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Material / Product Approval Letter

Date 8/25/2008

Dear Brian Codd

Thank you for choosing CES Environmental Services, Inc. for your material / product recycling needs. The following material has been approved at our facility in Houston, TX. If the material received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2956

Expiration Date 8/25/2010

Producer: Infineum

Address: Park & Brunswick Avenues

Linden, NJ 07036

Material / Product Information

Name of Material / Product Infineum D1282 Lube oil additive

Container Type:

Detailed Description of Process Generating or Producing the Material / Product:

Petroleum product additive

Color: clear

Odor: n/d

pH: na

Physical State:

Incompatibilities: stron oxidizers

Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, Prezident CES Environmental Services, Inc.

4904 Griggs Road Phone: (713) 676-1460

CES Environmental Services, Inc.

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 **ISWR No: 30900**

SECTION 1: Materi	al Producer Information	Plant	104 2067
Company:	Infineum USA L.P.		
Address:	Park & Brunswick Avenues-P.O.	Box 719	
City, State, Zip:	908-474-7273Linden, NJ 07036		
Contact:	Nick Barboza	Title:	Logistcs Engineer
Phone No:	908-474-3084	Fax No:	908-474-7273
24/hr Phone:			
U.S. EPA I.D. No:		CIC C 1	
State I.D.		SIC Code:	
SECTION 2: Billing Company: Address: City, State, Zip:	Information – 🔀 Same as Above	<u> </u>	
Contact:		Title:	
Phone No:		Fax No:	
Name of Material / P	al Description of the Material / Product: D1282 of Process Generating or Produc		Petroleum Product Additive
Physical State:	☑ Liquid☐ Sludge☐ Solid☐ Filter C	Powder Cake Combinatio	n
Color: flear	Odor: _nld		
Specific Gravity (wat	ter=1): <u>.911</u> Density: <u>7</u>	<u>.6</u> lbs/gal	
Does this material co	ntain any total phenolic compour	nds? 🗌 Yes 🏻 🖾 No	
Does this material co	ntain any para substituted pheno	lic compounds? 🗌 Yes 🏻 🏻	⊠ No
Layers:	⊠ Single-phase ☐ M	(ulti-phase	
Container Type: Container Size:	☑ Drum ☐ Tote 55 gal	☐ Truck	Other (explain)
			 .
177			77
Frequency:	☐ Weekly ☐ Montl	•	Yearly
Number of Units (con	ntainers): 41 Othe	r:	
	Product -	Recale	
Proper U.S. DOT Shi	inning Names		- Pag watered
-	<u> 1001 s</u>	RCRA/NON-DO	
Class:	UN/NA:	' PG:	ing RQ: na

• •						
Flash Point	pН	N/A	N/A		Solids	
230f	<u>n/a</u>	<u> </u>			<u>0</u> %	
Qil&Grease	TOC MAN	Zinc	Coppermg	Nickel	mg/l	
AND ST 10	9	8 to	mg/	·	uig/i	
SECTION 4: Physic	al and Chemical	•				
	COMPONEN			Concentration		
		ts of the following mate	erials	Ranges are accep	table or %	
Usperan	<u> </u>			50%		
Mila	u bil			50%		
		· - .		· · · <u>· · · · · · · · · · · · · · · · </u>		
						
		<u></u>				
SECTION 5: Safety	Related Data					
		- 4 41			1-:	
If the handling of thi		ict requires the use of s	special protective	e equipment, please	explain.	
	Stano	tand PPE				
SECTION 6: Attach						
List all documents, n	otes, data, and/or	analysis attached to thi	is form as part o	f the material / proc	duct profile.	
- MSD		•	•	•	•	
SECTION 7: Incom	_					
· · · · · · · · · · · · · · · · · · ·						
Please list all incomp —— HEAT	4 Showy	aidiners				
SECTION 8: Mater	•					
The information conta	ained herein is bas	ed on generator know	vledge and/or	analytical data. I he	ereby certify that the abo	ove and
attached description i	is complete and a	ccurate to the best of m	y knowledge and	d ability to determin	ne that no deliberate or	willful
		ist and that all known or		ds have been disclos	sed. I certify that the m	naterials
tested are representati	4	described by this docume	ent.	out o	11.7	
Authorized Signatur	e: Kli K	roaks/(Jenny	Pest B	(18	
Printed Name/Title:			<u> </u>			
CES USE ONLY (DO NO	T WRITE IN THIS S	PACE)				
	2	1 4				
Technical Manager:	eww.	MA				
Date: 8-25-6	08 G	pproved Rejected				
		2.0,000				
Approval Number:	2956					
Typrovai ivallioei.						



PROCESS FACILITY INFORMATION (CES USE ONLY!!)

ı.	Base Pricing (including freight):
	Pay. 10/gatton Down cost. (all Joy for details.
2.	Contamination Limits (maximum limit before surcharges apply):
	Material must be a good motorial
	,
3.	Surcharge Pricing:
4.	Special Testing Requirements:
	pH, Spinout for water, oil + solids.
	pH, Spinout for Water, oil + solids.
	•
5.	Treatment and Handling Protocol:
6.	Treated Wastewater Discharge Subcategory:
	☐ Subcategory A ☐ Subcategory B ☐ Subcategory C

PROCESS FACILITY INFORMATION (CES USE ONLY!!)

7. Tests for Product Recovered/Recycled (if applicable):

PH, Spin out for water, oil - solids

8. Management for Product Recovered/Recycled (if applicable);

CES Recovered Black Oil

Hodrams

41 Prums per Mid

Infineum D1282 Product Name: Revision Date: 06Feb2008

Page 1 of 9

MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum D1282

Product Description: Petroleum Product Additive

Product Code:

33827100

Intended Use:

Lube oil additive

Disporant N. H. C, O

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036

24 Hour Health Emergency **Transportation Emergency Phone**

Product Technical Information Supplier General Contact

mineral oil 489.

USA 800-726-2015

> 800-424-9300 800-654-1233 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

NFPA Hazard ID:

Health:

0

Flammability:

Reactivity:

HMIS Hazard ID:

Health:

Flammability:

Reactivity:

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use



Revision Date: 06Feb2008

Page 2 of 9

mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide, Smoke, Fume, Nitrogen oxides, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: >110C (230F) [Base oil ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.



Revision Date: 06Feb2008

Page 3 of 9

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material: however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways. sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. This material is not intended for use in air compressors for breathing applications. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: 60°C (140°F) - 70°C (158°F)

Transport Temperature: N/D Transport Pressure: N/D

Static Accumulator:

This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. Storage Temperature: <= 70°C (158°F)

Storage Pressure: N/D

Unsuitable Containers/Packing: Butadiene and styrene rubbers; Natural and butyl rubbers

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions.



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Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13,

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.



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GENERAL INFORMATION

Physical State: Liquid Color: Clear and Bright

Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 60 F): 0.911

Density (at 15 °C): 911 kg/m³ (7.6 lbs/gal, 0.91 kg/dm³)

Flash Point [Method]: >110C (230F) [Base oil ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A
Boiling Point / Range: N/A
Vapor Density (Air = 1): N/D
Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 4238 cSt (4238 mm2/sec) at 40 C [Typical] | 190 cSt (190 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Pour Point: $< 0^{\circ}C$ (32°F)

Hygroscopic: No

Coefficient of Thermal Expansion: 0.00069 V/VDEGC

Decomposition Temperature: N/A

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or



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	lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

A component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be inherently biodegradable

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised



Product Name:

Infineum D1282

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incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, TSCA, PICCS, IECSC, ENCS, KECI, EINECS, DSL

EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
SOLVENT DEWAXED HEAVY	64742-65-0	13, 18



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PARAFFINIC DISTILLATE

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL 6 = TSCA 5a2 11 = CA P65 REPRO 16 = MN RTK 2 = ACGIH A1 7 = TSCA 5e 12 = CA RTK 17 = NJ RTK 3 = ACGIH A2 8 = TSCA 6 13 = IL RTK 18 = PA RTK 4 = OSHAZ9 = TSCA 12b 14 = LA RTK 19 = RI RTK 5 = TSCA 4 10 = CA P65 CARC 15 = MI 293

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 13: Empty Container Warning was modified.

Section 09: Density kg/m3(lbs/gal) was modified.

Section 08: Hand Protection was modified.

Section 07: Handling and Storage - Handling was modified.

Hazard Identification: Health Hazards was modified.

Section 07: Loading/Unloading Temperature C(F) was modified.

Section 07: Transport Temperature C(F) was modified.

Section 07: Storage Temperature C(F) was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 09: Relative Density - Header was modified.

Section 09: Flash Point C(F) was modified.

Section 09: Viscosity was modified.

Section 09: Viscosity was modified.

Section 08: Hand Protection was modified.

Section 08: Skin and Body Protection was modified.

Section 15: List Citation Table - Header was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 06: Notification Procedures was modified.

Section 15: Chemical Name - Header was added.

Section 15: CAS Number - Header was added.

Section 15: List Citations - Header was added.

Section 15: List Citations Table was added.

Section 09: Decomposition Temperature was added.

Section 09: Decomposition Temp - Header was added.

Section 11: Chronic Tox - Component - U.S. Infineum - Header was added.

Section 11: Chronic Tox - Component - Header was deleted.

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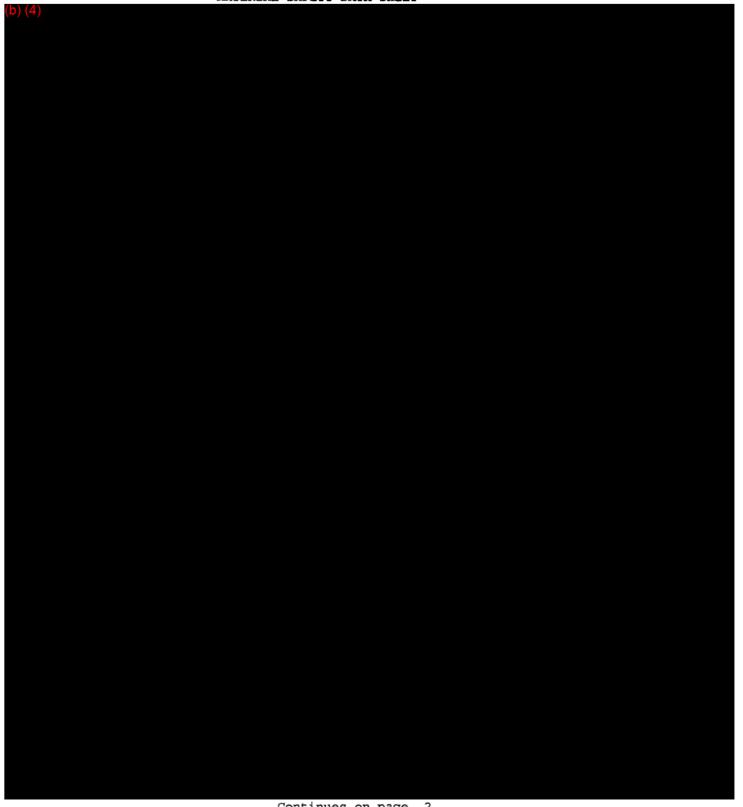
Internal Use Only

MHC: 0, 0, 0, 0, 2, 1

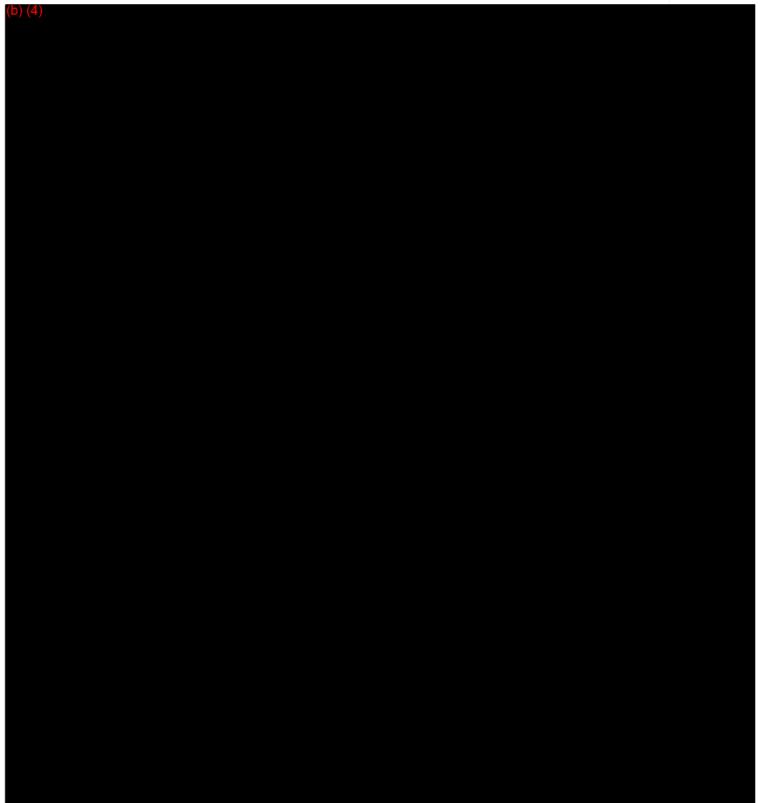
DGN: 6003433 (1009668) (NA Core)

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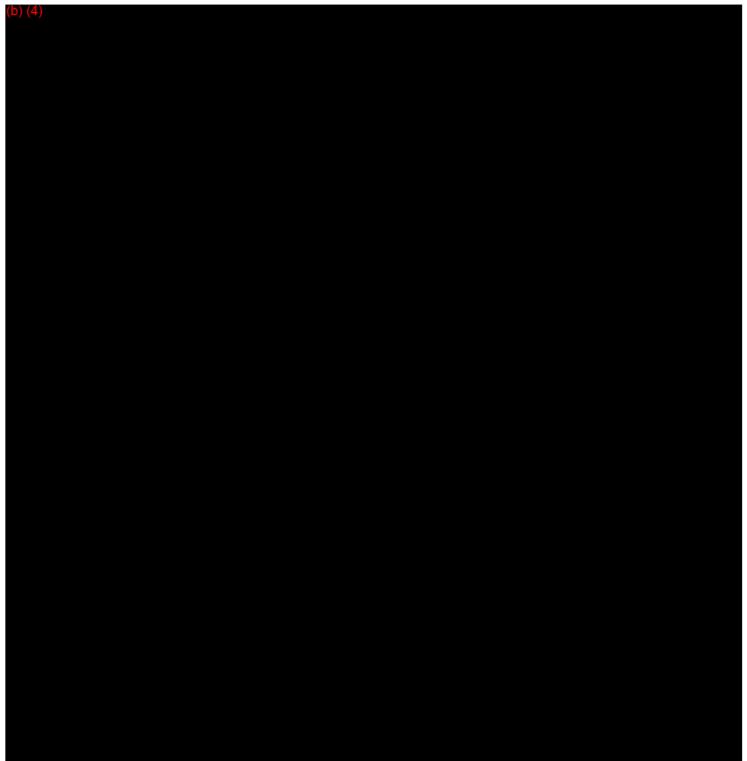
2980



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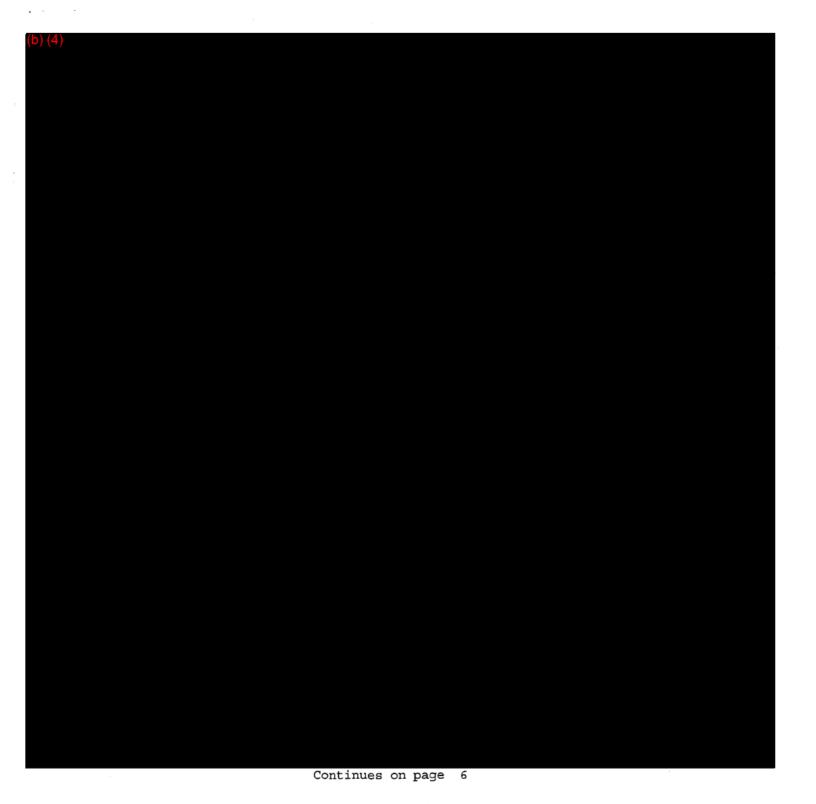


Continues on page 3



Continues on page 4





Continues on page 7



ORIGINAL NOT NEGOTIABLE



Ship-To Address

CES ENVIRONMENTAL SERVICES, I 4904 GRIGGS ROAD HOUSTON TX 77021 USA

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specially stated by the shipper to be not exceeding

DOT Reg# 0060602 701 009K

Supplier Code: US31

PER

RECEIVED. Subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading.

07036

Information

Ship Date 04-Sep-08

Proposed Delivery Date 08-Sep-08 16:00:00

Delivery No. Order No.

80581739 10279189

Cust. PO MATT BOWMAN

Freight Terms

Mode Of Transport

Pipeline no COA

FEIN

74-2892487

Carrier Name: Hermann Transportation

Linden

From: Infineum USA L.P.

Shipping date: 04-Sep-08

1300 LOWER ROAD

NJ

The description and weight indicated on this bill of lading are correct. Subject to verification by the Western Weighing and Inspection Bureau according to agreement. Shippers imprint in lieu of stamp, not a part of bill of lading approved by the Interstate Commerce Commission. *If the shipment between two ports by a carrier by water, the law requires the bill of lading shall state whether it is "carrier's or shipper's weight" PLACARDS OFFERED

CARRIER SIGNATURE

The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned and designed as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination. It is mutually agreed as to, each carrier of all or any of said property overall or any position of said route to destination, and as to each party at any time interested in all any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform domestic Straight Bill Of Lading set forth (1) in uniform Freight Classification in effect on the date hereof, if this is a rail or rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment, Shipper hereby certifies that he is familiar with all the terms and conditions of the said Bill of Lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns, if the delivery is made by sellers truck or into vehicle of buyer, Bill of Lading provisions are not applicable and this document will serve as delivery receipt.

DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS

FREIGHT WEIGHT (SUB. TO CORR.)

71811

U.S. Department of Transportation - Road, Rail, Inland waterway:

Not regulated

This shipment contains oil.

20010386

41 DR

TRANSPORT ID.: TRL 53141 JH EXPRESS

Infineum D1282

20010386

Infineum D1282

NET GAL:

2,137,478

Delivery Quantity:41 DR

Gross Weight:

8,066.340 KG

Net Weight:

7,380.000 KG

EMPTY TRUCK WT: Vessel Cutoff Date:

2287.2095 LB

ETD:

Vessel Name:

Voyage:

Booking Number:

Seal #: Seal #:

TOTAL NET WEIGHT: 25946.225 LB

TOTAL GROSS WEIGHT: 28233.434 LB

FOR CHEMICAL EMERGENCY SPILL, FIRE, EXPOSURE, OR ACCIDENT, CALL CHEMTREC (day or night)--800-424-9300 or 703-527-3887 (Outside the US) (collect calls accepted)

Carrier certifies that the cargo tank supplied for this shipment is a proper container, as required in part 173, for the transportation of the commodity in the bill of la

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name, and are classified, in all respects in proper condition for transport according to applicable international and national governmental re-

Infineum USA L.P.

Permanent Post Office Address of Shipper. P.O. BOX 719, LINDEN, NJ 07036-0719

SHIPPER

CARRIER

If the charges are to be prepaid, write or stamp here, "To Be Prepaid.

CPT

(This signature here acknowledge only the amout prepaid.)

Forward Freight bill to:

Infineum USA L.P. P.O. Box 216

Linden, NJ 07036.

PER



ORIGINAL NOT NEGOTIABLE NOTE: Where the rate is dependent on Information Ship-To Address value, shippers are required to state specifically in writing the agreed or CES ENVIRONMENTAL SERVICES, I declared value of the property. The agreed Ship Date 04-Sep-08 or declared value of the property is hereby 4904 GRIGGS ROAD **Proposed Delivery Date** 08-Sep-08 16:00:00 specially stated by the shipper to be not HOUSTON TX 77021 Delivery No. 80581739 USA PER Order No. 10279189 Cust. PO MATT BOWMAN Freight Terms RECEIVED. Subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading. Mode Of Transport Pipeline no COA From: Infineum USA L.P. DOT Reg# 0060602 701 009K 74-2892487 FEIN 1300 LOWER ROAD Supplier Code: US31 Linden NJ 07036 Carrier Name: Hermann Transportation The description and weight indicated on this bill of lading are correct. Subject to verification PLACARDS OFFERED by the Western Weighing and Inspection Bureau according to agreement. Shippers imprint in lieu of stamp, not a part of bill of lading approved by the Interstate Commerce Commission. CARRIER SIGNATURE Shipping date: 04-Sep-08 *If the shipment between two ports by a carrier by water, the law requires the bill of lading shall state whether it is "carrier's or shipper's weight" The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned and designed as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination. It is mutually agreed as to, each carrier of all or any of said property overall or any position of said route to destination, and as to each party at any time interested in all any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform domestic Straight Bill Of Lading set forth (1) in uniform Freight Classification in effect on the date hereof, if this is a rail or rail-water shipment, or (2)in the applicable motor carrier classification or tariff if this is a motor carrier shipment, Shipper hereby certifies that he is familiar with all the terms and conditions of the said Bill of Lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns, if the delivery is made by sellers truck or into vehicle of buyer, Bill of Lading provisions are not applicable and this document will serve as delivery receipt. DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS FREIGHT WEIGHT (SUB. TO CORR.) U.S. Department of Transportation - Road, Rail, Inland waterway: Not regulated 0020 21DR TRANSPORT ID.: TRL 53141 JH EXPRESS 20010499 HEAVY POLYAMINE 920 20010499 HEAVY POLYAMINE 71811 **NET GAL:** 1,159.438 Delivery Quantity:21 DR 4.389.000 KG Gross Weight: 4,740.120 KG Net Weight: EMPTY TRUCK WT: 2287.2095 LB ETA: Vessel Cutoff Date: ETD: Vessel Name: Booking Number: Voyage: Seal #: Seal #: TOTAL GROSS WEIGHT: 28233.434 LB TOTAL NET WEIGHT: 25946.225 LB FOR CHEMICAL EMERGENCY SPILL, FIRE, EXPOSURE, OR ACCIDENT, CALL CHEMTREC (day or night)--800/424-9300 or 703-527-3887 (Outside the US) (collect calls accepted) Carrier certifies that the cargo tank supplied for this shipment is a proper container, as required in part 173, for the transportation of the commodity in the other shipping papers. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name, and are classified, in all respects in proper condition for transport according to applicable international and national governmental regulations. SHIPPEB Infineum USA L.P. Permanent Post Office Address of Shipper. P.O. BOX 719, LINDEN, NJ 07036-0719 Forward Freight bill to: CARRIER If the charges are to be prepaid, write or stamp here, "To Be Prepaid. Infineum USA L.P. **CPT** P.O. Box 216 PER (This signature here acknowledge only the amout prepaid.) Linden, NJ 07036.

MATERIAL SAFETY DATA SHEET Infineum

2956

Product Name: Infineum D1282 Revision Date: 06Feb2008	
SECTION 1 PRODUCT AND CO	MPANY IDENTIFICATION
PRODUCT Product Name: Infineum D1282 Product Description: Petroleum Product Code: 33827100 Intended Use: Lube oil additive	duct Additive
COMPANY IDENTIFICATION Supplier: INFINEUM USA L.P. P.O. Box CN 135 Linden, NJ. 07036 USA	
Linden, NJ. 07030 USA	24 Hour Health Emergency 800-726-2015 Transportation Emergency Phone 800-424-9300 Product Technical Information 800-654-1233
SECTION 2 COMPOSITION /	INFORMATION ON INGREDIENTS
No Reportable Hazardous Subst	ance(s) or Complex Substance(s).
SECTION 3 HAZARDS IDENTI	FICATION
	ed to be hazardous according to regulatory guidelines (see
POTENTIAL PHYSICAL / CHEMICAL Thermal burn hazard - contact	EFFECTS t with hot material may cause thermal burns.
	be irritating to the eyes, nose, throat, and lungs. Excessive kin, or respiratory irritation.
NFPA Hazard ID: Health: HMIS Hazard ID: Health:	0 Flammability: 1 Reactivity: 0 1 Flammability: 1 Reactivity: 0
Section 1 without expert advi	not be used for any other purpose than the intended use in ce. Health studies have shown that chemical exposure may cause which may vary from person to person.
SECTION 4 FIRST AID MEAS	URES

MATERIAL SAFETY DATA SHEET Infineum

Product Name: Infineum D1282

Revision Date: 06Feb2008

TNHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide, Smoke, Fume, Nitrogen oxides, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: >110C (230F) [Base oil ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/

Autoignition Temperature: N/A

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant

Page 2 of 10

MATERIAL SAFETY DATA SHEET

Product Name: Infineum D1282

Revision Date: 06Feb2008

authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

Avoid contact with skin. This material is not intended for use in air compressors for breathing applications. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: 60°C (140°F) - 70°C (158°F)

Transport Temperature: N/D Transport Pressure: N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers.

Storage Temperature: <= 70°C (158°F)

Storage Pressure: N/D

Unsuitable Containers/Packing: Butadiene and styrene rubbers; Natural and butyl rubbers

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

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MATERIAL SAFETY DATA SHEET Infineum

Product Name: Infineum D1282

Revision Date: 06Feb2008

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m^3 - ACGIH TLV, 10 mg/m^3 - ACGIH STEL, 5 mg/m^3 - OSHA PEL.

NOTE: Limits/standards shown for quidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material

Page 4 of 10

MATERIAL SAFETY DATA SHEET

Product Name: Infineum D1282

Revision Date: 06Feb2008

include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid Color: Clear and Bright

Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 60 F): 0.911

Density (at 15 °C): 911 kg/m³ (7.6 lbs/gal, 0.91 kg/dm³)
Flash Point [Method]: >110C (230F) [Base oil ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A
Boiling Point / Range: N/A
Vapor Density (Air = 1): N/D
Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 4238 cSt (4238 mm2/sec) at 40 C [Typical] | 190 cSt (190 mm2/sec) at 100C Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Pour Point: < 0°C (32°F)

Hygroscopic: No

Coefficient of Thermal Expansion: 0.00069 V/VDEGC

Decomposition Temperature: N/A

Page 5 of 10

MATERIAL SAFETY DATA SHEET Infineum

Product Name: Infineum D1282

Revision Date: 06Feb2008

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure

Conclusion / Remarks

Inhalation

Toxicity: LC50 > 5 mg/l

Irritation: No end point data.

Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the ey

Ingestion

Toxicity: LD50 > 2000 mg/kg

Skin

Toxicity: LD50 > 2000 mg/kg

Irritation: No end point data.

Eve

Irritation: No end point data.

Minimally Toxic.

Minimally Toxic.

Minimally Toxic.

Mildly irritating to skin with

prolonged exposure.

May cause mild, short-lasting

discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC 2 = NTP SUS

3 = IARC 1

4 = IARC 2A

5 = IARC 2B

6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

Page 6 of 10

MATERIAL SAFETY DATA SHEET Infineum

Product Name: Infineum D1282

Revision Date: 06Feb2008

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

A component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be inherently biodegradable

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

Page 7 of 10

MATERIAL SAFETY DATA SHEET

Product Name: Infineum D1282

Revision Date: 06Feb2008

LAND (DOT) : Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG) : Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA) : Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, TSCA, PICCS, IECSC, ENCS, KECI, EINECS, DSL

EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name CAS Number List Citations SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE 64742-65-0 13, 18

-- REGULATORY LISTS SEARCHED --

2 = ACGIH A13 = ACGIH A21 = ACGIH ALL 5 = TSCA 46 = TSCA 5a24 = OSHA Z8 = TSCA 69 = TSCA 12b7 = TSCA 5e11 = CA P65 REPRO 12 = CA RTK10 = CA P65 CARC 13 = IL RTK14 = LA RTK15 = MI 29317 = NJ RTK18 = PA RTK16 = MN RTK

19 = RI RTK

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

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MATERIAL SAFETY DATA SHEET Infineum

Product Name: Infineum D1282

Revision Date: 06Feb2008

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THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:
Revision Changes:
Section 13: Empty Container Warning was modified.
Section 09: Density kg/m3(lbs/gal) was modified.
Section 08: Hand Protection was modified.
Section 07: Handling and Storage - Handling was modified.
Hazard Identification: Health Hazards was modified.
Section 07: Loading/Unloading Temperature C(F) was modified.
Section 07: Transport Temperature C(F) was modified.
Section 07: Storage Temperature C(F) was modified.
Section 06: Accidental Release - Spill Management - Water was modified.
Section 09: Relative Density - Header was modified.
Section 09: Flash Point C(F) was modified.
Section 09: Viscosity was modified.
Section 09: Viscosity was modified.
Section 08: Hand Protection was modified.
Section 08: Skin and Body Protection was modified.
Section 15: List Citation Table - Header was modified.
Section 15: National Chemical Inventory Listing was modified.
Section 06: Notification Procedures was modified.
Section 15: Chemical Name - Header was added.
Section 15: CAS Number - Header was added.
Section 15: List Citations - Header was added.
Section 15: List Citations Table was added.
Section 09: Decomposition Temperature was added.
Section 09: Decomposition Temp - Header was added.
Section 11: Chronic Tox - Component - U.S. Infineum - Header was added.
Section 11: Chronic Tox - Component - Header was deleted.
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The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no representation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use; there is no warranty against intellectual property infringement; and Infineum shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.

MATERIAL SAFETY DATA SHEET Infineum

	t Name: n Date: 00	Infineum D1282 6Feb2008	2			
Interna	al Use Or	nly		 · · · · · · · · · · · · · · · · · · ·		
MHC:	0, 0, 0,	0, 2, 1				
DGN:	6003433	(1009668)		 	 	
Copyri	 ght 2002	Infineum, A	 ll rights res	 		



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Material / Product Approval Letter

Date 8/25/2008

Thank you for choosing CES Environmental Services, Inc. for your material

Transport recognition was do The fell in the service of the servi

product recycling needs. The following material has been approved at our facility in Houston, TX. If the material received does not conform to the

profile, then rejection or additional charges may apply.

CES Profile # 2956

Expiration Date 8/25/2010

Producer: Infineum

Address: Park & Brunswick Avenues

Linden, NJ 07036

Material / Product Information

Name of Material / Product Influence D1282 Lube oil additive

Container Type:

Detailed Description of Process Generating or Producing the Material / Product:

Petroleum product additive

Color: clear

Odor: n/d

pH: na

Physical State:

Incompatibilities: stron oxidizers

Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc. Cost is wrong. West down pricing. Material should process to Black Oil. Ph



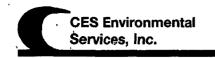
4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900 y k

SECTION 1: Mater Company: Address:	ial Producer Inform Infineum USA L.P Park & Brunswick	•	as PO Roy 710		1 Carl		2201
City, State, Zip:	908-474-7273Lind						
City, State, Zip.	Nick Barboza	CII, INJ	07030		Title:	Logistes	Engineer
Phone No:	908-474-3084				Fax No:	908-474-	
24/hr Phone:	700-474-3004			<u> </u>	PAX INU.	700-474-	1213
U.S. EPA I.D. No:							
State I.D.				— ,	SIC Code:		
State 115.			<u> </u>				
SECTION 2: Billing Company: Address:	Information – 🛛 S	Same a	s Above				
City, State, Zip:							
Contact:			Title:	_			
Phone No:			Fax No:				
SECTION 3: General	al Description of the	Mate	rial / Product				
Name of Material / P Detailed Description		ing or 1	be oil Producing the Mar				Product Additive
Physical State:	☑ Liquid☑ Solid		Sludge Filter Cake	_	Powder Combination	ı	
Color: lear	C)dor: _	nld				
Specific Gravity (wat	ter=1): <u>.911</u>	Der	nsity: 7.6 lbs/gal				
Does this material co	ntain any total pher	iolic co	ompounds? 🗌 Ye	s [⊠ No		
Does this material co	ntain any para subs	tituted	l phenolic compou	nds?	☐ Yes ⊠] No	
Layers:	⊠ Single-phase		☐ Multi-phase				
Container Type:	□ Drum	П	Tote		Truck	П	Other (explain)
Container Size:	55 gal	in the second				Land	
Container Size.	<u>50 gai</u>						
	_	_	_	_			
Frequency:	☐ Weekly		Monthly	\boxtimes	Quarterly		Yearly
Number of Units (cor	ntainers): <u>41</u>		Other:				
	ଚ	wdni	t - Recycle				
Proper U.S. DOT Shi				1			root vi
-			Non-RCRA	<u>/ N</u>	on-Dot	Reg	Naterial
Class:	UN/N	A:	~a	-	PG:	a	RQ: na

ž.						
Flash Point	рH	N/A	N/A		Solids	
230f	, <u>n/a</u>			0% Nickel		
Hollow 48%	Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Copper Co				mg/l	
		10				
SECTION 4: Physic	al and Chemical D	ata				
	COMPONEN	TS TABLE		Concentration) n	Units
The materia	l / product consist	s of the following materi	als	Ranges are accep	ptable	or %
USperan	*			50%		
<u> </u>	L bil			50%)	
DI.98.0)			0-1009	10_	
<u> </u>	<u>1</u>					
	1					
						1
SECTION 5: Safety	Related Data					
		et requires the use of spe	acial protectiv	za aquinment nlegse	avnlain	
			cciai protectiv	e equipment, piease	схріаін.	
		and PPE				
SECTION 6: Attach						
		analysis attached to this	form as part	of the material / pro	duct pro	file.
— WSD:						
SECTION 7: Incom	<u>patibilities</u>					
Please list all incomp	atibilities (if any):	• /	_	200 C D C)	`	
- HEAT	4 Shorty	xidiatrs (See	MIZDZ)	
SECTION 8: Materi	al Producer's Cer	tification				
The information conta	ined herein is base	d on 🏹 generator knowle	edge and/or	analytical data. I h	ereby cer	tify that the above and
		curate to the best of my t and that all known or s				
tested are representativ	re of all materials de	escribed by this document	. "	_		ility mai me material
	V . 10	roakn	1	Post B	110	
Authorized Signature	: LL W	coally /C	eny	Date:	טין	
Printed Name/Title:		, 0	y	<u></u>		
CES USE ONLY (DO NO	WRITE IN THIS SP	ACE)				
Technical Manager:	edwart	1				
- 0 30 4						
Date: <u>8-25-0</u>	Ap	proved Rejected				
A	2956					
Approval Number:	J 1 - 0					



PROCESS FACILITY INFORMATION (CES USE ONLY!!)

Base Pricing (including freight):
Pay. 10/gallon Down cost. (all Joy for details.
Contamination Limits (maximum limit before surcharges apply):
Material must be a good motorial
,
Surcharge Pricing:
Special Testing Requirements:
PH, Plash, Toc, pato, pil + solids.
pH, Spinout for water, oil - solids.
Treatment and Handling Protocol:
Treated Wastewater Discharge Subcategory:
☐ Subcategory A ☐ Subcategory B ☐ Subcategory C

PROCESS FACILITY INFORMATION (CES USE ONLY!!)

7. Tests for Product Recovered/Recycled (if applicable):

PH, Spin out for water, oil + solids

8. Management for Product Recovered/Recycled (if applicable);

CES Recovered Black Oil

Hodrams

41 Prums per lich

Infineum D1282 Product Name:

Revision Date: 06Feb2008

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum D1282

Product Description: Petroleum Product Additive

Product Code: 33827100

Intended Use: Lube oil additive Disparent N. H. C.O

mineral oil 48%

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036

24 Hour Health Emergency

Transportation Emergency Phone Product Technical Information

Supplier General Contact

USA 800-726-2015

800-424-9300

800-654-1233 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

NFPA Hazard ID:

Health:

0

Flammability:

Reactivity:

HMIS Hazard ID:

Health:

Flammability: 1 Reactivity:

This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use



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mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide, Smoke, Fume, Nitrogen oxides, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: >110C (230F) [Base oil ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.



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Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. This material is not intended for use in air compressors for breathing applications. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: 60°C (140°F) - 70°C (158°F)

Transport Temperature: N/D **Transport Pressure:** N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 70°C (158°F)

Storage Pressure: N/D

Unsuitable Containers/Packing: Butadiene and styrene rubbers; Natural and butyl rubbers

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions.



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Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.



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GENERAL INFORMATION

Physical State: Liquid Color: Clear and Bright

Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 60 F): 0.911

Density (at 15 °C): 911 kg/m³ (7.6 lbs/gal, 0.91 kg/dm³)

Flash Point [Method]: >110C (230F) [Base oil ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A
Boiling Point / Range: N/A
Vapor Density (Air = 1): N/D
Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 4238 cSt (4238 mm2/sec) at 40 C [Typical] | 190 cSt (190 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Pour Point: $< 0^{\circ}C$ (32°F)

Hygroscopic: No

Coefficient of Thermal Expansion: 0.00069 V/VDEGC

Decomposition Temperature: N/A

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or



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	lungs.	
Ingestion		
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.	
Skin		
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.	
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.	
Eye		
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.	

Additional information is available by request.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

A component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be inherently biodegradable

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised



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incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, TSCA, PICCS, IECSC, ENCS, KECI, EINECS, DSL

EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
SOLVENT DEWAXED HEAVY	64742-65-0	13, 18



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PARAFFINIC DISTILLATE

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL 6 = TSCA 5a211 = CA P65 REPRO 16 = MN RTK 2 = ACGIH A1 7 = TSCA 5e 12 = CA RTK 17 = NJ RTK 3 = ACGIH A2 8 = TSCA 6 13 = IL RTK 18 = PA RTK 4 = OSHA Z 9 = TSCA 12b 14 = LA RTK 19 = RI RTK 5 = TSCA 4 10 = CA P65 CARC 15 = MI 293

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 13: Empty Container Warning was modified.

Section 09: Density kg/m3(lbs/gal) was modified.

Section 08: Hand Protection was modified.

Section 07: Handling and Storage - Handling was modified.

Hazard Identification: Health Hazards was modified.

Section 07: Loading/Unloading Temperature C(F) was modified.

Section 07: Transport Temperature C(F) was modified.

Section 07: Storage Temperature C(F) was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 09: Relative Density - Header was modified.

Section 09: Flash Point C(F) was modified.

Section 09: Viscosity was modified.

Section 09: Viscosity was modified.

Section 08: Hand Protection was modified.

Section 08: Skin and Body Protection was modified.

Section 15: List Citation Table - Header was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 06: Notification Procedures was modified.

Section 15: Chemical Name - Header was added.

Section 15: CAS Number - Header was added.

Section 15: List Citations - Header was added.

Section 15: List Citations Table was added.

Section 09: Decomposition Temperature was added.

Section 09: Decomposition Temp - Header was added.

Section 11: Chronic Tox - Component - U.S. Infineum - Header was added.

Section 11: Chronic Tox - Component - Header was deleted.

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum F7589

Product Description: Petroleum Product Additive

Product Code: 33977100 **Intended Use:** Fuel additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency Transportation Emergency Phone Product Technical Information 800-726-2015 800-424-9300

800-654-1233

Supplier General Contact

800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

HEAVY AROMATIC SOLVENT ALKYL ALCOHOL KEROSENE

Hazardous Constituent(s) Contained in Complex Substance(s)

NAPHTHALENE

PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Combustible. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited. Material can accumulate static charges which may cause an incendiary electrical discharge.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Irritating to skin. Possible human cancer hazard. Danger of adverse health effects by a single exposure. May be irritating to the eyes, nose, throat, and lungs. May cause central nervous system depression.

Target Organs: Nervous system | Lung | Skin | Eye |

ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



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NFPA Hazard ID:

Health:

Flammability: 2

Reactivity: 0

HMIS Hazard ID:

Health: 2*

2

Flammability: 2

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Combustible. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Carbon monoxide, Nitrogen oxides, Smoke, Fume, Carbon dioxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: 72C (162F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D



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Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Prevent dust cloud. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. For Large Spills: Cover spill with plastic sheet or tarpaulin to minimize spreading.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Use proper bonding and/or grounding



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procedures. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source).

Loading/Unloading Temperature: -30°C (-22°F) - 54°C (129°F)

Transport Temperature: N/D Transport Pressure: N/D

Static Accumulator: This material is a static accumulator.

STORAGE

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded. Drums must be grounded and bonded and equipped with self-closing valves, pressure vacuum bungs and flame arresters.

Storage Temperature: -30°C (-22°F) - 54°C (129°F)

Storage Pressure: N/D

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / S	tandard		Note	Source
HEAVY AROMATIC SOLVENT	Inhalable	TWA	17 ppm	100 mg/m3	N/A	Supplier
ALKYL ALCOHOL	N/A	TWA	50 ppm		N/A	Supplier
NAPHTHALENE	N/A	TWA	50 mg/m3	10 ppm	N/A	OSHA Z1
NAPHTHALENE	Inhalable	STEL	15 ppm	79 mg/m3	N/A	Supplier
NAPHTHALENE	Inhalable	TWA	10 ppm	52 mg/m3	N/A	Supplier
PSEUDOCUMENE (1,2,4-	N/A	TWA	25 ppm		N/A	ACGIH
TRIMETHYLBENZENE)						

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.



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Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended.

Eye Protection: Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: Amber Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density: 0.909

Density (at 15 °C): 909 kg/m³ (7.59 lbs/gal, 0.91 kg/dm³)

Flash Point [Method]: 72C (162F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A



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Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 7 cSt (7 mm2/sec) at 40 C | 18 cSt (18 mm2/sec) at 20C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Pour Point: -48°C (-55°F)

Coefficient of Thermal Expansion: 0.00079 V/VDEGC

Decomposition Temperature: N/D

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Open flames and high energy ignition sources. Do not heat above flashpoint.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure Conclusion / Remarks			
Inhalation			
Toxicity: No end point data.	May cause central nervous system effects.		
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.		
Ingestion			
Toxicity: No end point data.	Minimally Toxic.		
Skin			
Toxicity: No end point data.	Minimally Toxic.		
Irritation: No end point data.	Irritating to the skin.		
Еуе			
Irritation: No end point data.	Irritating and will injure eye tissue.		

CHRONIC/OTHER EFFECTS



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Contains:

Kerosene: Carcinogenic in animal tests. Lifetime skin painting tests produced tumors, but the mechanism is due to repeated cycles of skin damage and restorative hyperplasia. This mechanism is considered unlikely in humans where such prolonged skin irritation would not be tolerated. Did not cause mutations In vitro. Inhalation of vapors did not result in reproductive or developmental effects in laboratory animals. Inhalation of high concentrations in animals resulted in respiratory tract irritation, lung changes and some reduction in lung function. Non-sensitizing in animal tests.

NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.

Additional information is available by request.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
NAPHTHALENE	91-20-3	5

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY Not determined.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used



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product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT)

Proper Shipping Name: COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM DISTILLATES)

Hazard Class & Division: COMBUSTIBLE LIQUID

ID Number: NA1993 Packing Group: III Marine Pollutant: Yes ERG Number: 128 Label(s): NONE

Transport Document Name: NA1993, COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM DISTILLATES),

COMBUSTIBLE LIQUID, PG III, RQ NAPHTHALENE

Footnote: This material is not regulated under 49 CFR in a container of 119 gallon capacity or less when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically

listed as a hazardous substance.

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkyl (C3-C5)

Benzenes)

Hazard Class & Division: 9

UN Number: 3082 Packing Group: III

Label(s): 9

Transport Document Name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

(Alkyl (C3-C5) Benzenes), 9, PG III

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: DSL, ENCS, AICS, IECSC, KECI, EINECS, TSCA



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EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Fire. Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value	
NAPHTHALENE	91-20-3	5 - 9.9%	
PSEUDOCUMENE (1,2,4- TRIMETHYLBENZENE)	95-63-6	1 - 4.9%	

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
ALKYL ALCOHOL	68526-85-2	17
KEROSENE	8008-20-6	17, 19
NAPHTHALENE	91-20-3	4, 5, 10, 13, 16, 17, 18, 19
PSEUDOCUMENE (1,2,4- TRIMETHYLBENZENE)	95-63-6	1, 13, 16, 17, 18, 19
TRACE METAL IMPURITIES	N/A	10, 11
TRACE REPORTABLE AROMATIC COMPOUNDS	None	10, 11

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTH	ER INFORMATION
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N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 06: Protective Measures was modified.

Section 06: Notification Procedures - Header was modified.

Section 13: Empty Container Warning was modified.

Section 08: Hand Protection was modified.

Section 07: Loading/Unloading Temperature C(F) was modified.

Section 07: Transport Temperature C(F) was modified.

Section 07: Storage Temperature C(F) was modified.



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Section 05: Hazardous Combustion Products was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 15: List Citations Table was modified.

Section 15: SARA (313) TOXIC RELEASE INVENTORY - Table was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 06: Notification Procedures was modified. Section 08: Exposure Limits Table was modified.

Occilor oo. Exposure Limits Table was modified

PRECAUTIONARY LABEL TEXT:

Contains: ALKYL ALCOHOL, KEROSENE, NAPHTHALENE, HEAVY AROMATIC SOLVENT, PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)

WARNING!

HEALTH HAZARDS

Irritating to eyes. Irritating to skin. Possible human cancer hazard. Danger of adverse health effects by a single exposure.

Target Organs: Nervous system | Lung | Skin | Eye |

PHYSICAL HAZARDS

Combustible. Material can accumulate static charges which may cause an incendiary electrical discharge.

PRECAUTIONS

Avoid contact with skin. Avoid contact with eyes. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Use proper bonding and/or grounding procedures.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Oral: Seek immediate medical attention. Do not induce vomiting.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Prevent dust cloud. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent. Do not touch or walk through spilled material.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.



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Use

Not intended or suitable for use in or around a household or dwelling.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

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Internal Use Only

MHC: 0, 0, 1, 2, 4, 1

DGN: 6003565 (1013117) (NA Core)

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum C9409

Product Description: Petroleum Product Additive

Product Code: 32630100 Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency **Transportation Emergency Phone Product Technical Information**

800-424-9300 800-654-1233

800-726-2015

Supplier General Contact

800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s) **TOLYLTRIAZOLE**

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Contact with hot material can cause thermal burns which may result in permanent damage or blindness. Thermal burn hazard contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Eye |

NFPA Hazard ID:

Health:

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health:

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES



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INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

INGESTION

Give one or two glasses of water if patient is alert and able to swallow. Seek immediate medical attention. Do not induce vomiting.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Nitrogen oxides, Carbon monoxide, Smoke, Fume

FLAMMABILITY PROPERTIES

Flash Point [Method]: 160C (320F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/E

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES



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In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid all personal contact. Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: ND

Transport Temperature: N/D **Transport Pressure:** N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 65°C (149°F)

Storage Pressure: N/D

Suitable Materials and Coatings: Carbon Steel; Stainless Steel; Zinc; Epoxies

Unsuitable Materials and Coatings: Butadiene Rubber; Butyl Rubber; Polyethylene; Rubber; Styrene



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Rubber

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: Chemical goggles and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If



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product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: N/A Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 C): 0.837 15.6°/15.6C

Density (at 15 °C): 837 kg/m³ (6.99 lbs/gal, 0.84 kg/dm³)

Flash Point [Method]: 160C (320F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/D

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 82 cSt (82 mm2/sec) at 40 C | 9.4 cSt (9.4 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Coefficient of Thermal Expansion: 0.00068 %

Decomposition Temperature: N/D

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures.



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MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data.	Severely irritating, and may cause irreversible discoloration of the eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.



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SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: CORROSIVITY.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: PICCS, IECSC, KECI, ENCS, TSCA, EINECS

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other



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reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below: None.

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

No revision information is available.

PRECAUTIONARY LABEL TEXT:

WARNING!

HEALTH HAZARDS

Irritating to eyes.

Target Organs: Eye |

PHYSICAL HAZARDS Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

PRECAUTIONS

Avoid all personal contact. Avoid contact with skin. Avoid contact with eyes.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

Oral: Give one or two glasses of water if patient is alert and able to swallow. Seek immediate medical attention. Do not induce vomiting.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.



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FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

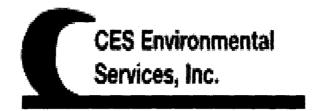
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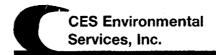
MHC: 0, 0, 0, 3, 2, 1

DGN: 7090344 (1015151) (NA Core)

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On Behalf of Infineum Park & Brunswick Avenues PO Box 719 Linden, NJ 07036 Wednesday, November 05, 2008 RE: Profile 2956 To Approvals Department: Please add the following products to CES Environmental Services' profile # 2956 for Lube Oil Additive; R664, C9208, F7589, C4909, ISP02, M7188, C9018, R655, G201, C9081, C9402 Please contact me if there are any questions / concerns. Sincerely Jennifer Rust MSDS Follow



4904 Griggs Road Phone: (713) 676-1460 Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948
U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: General	ator Information	on											
Company :	Infineum				<u>_</u>								
Address :	Park & Bruns	swick Avenu	ies PO B	ox 719									
City, State, Zip:	Linden NJ 0	7036											
Contact :	Brian Codd						Title :						
Phone No:	(908) 474-22	221					Fax:	<u>(</u> 9	08) 474	-7273			
24 / HR Phone :							_						
U.S EPA I.D No :													
State I.D :							SIC Co	ode _					
SECTION 2: Billing	Information												
Company:	Infineum												
Address :	Park & Bruns	swick Avenu	es PO Bo	ox 719									
City, State, Zip :	Linden NJ 07	7036											
Contact:	Brian Codd						Title:						
Phone No :	(908) 474-22	221					Fax :	(9	08) 474-	7273			
SECTION 3: Genera	l Description	of the Waste	<u> </u>										
Name of Waste :	Lube oil addi	itive											
Detailed Descript	ion of the Pr	ocess Gen	erating W	aste:									
Petroleum product	additive												
Physical State :	Liqui	d	∭ Slı	ıdge		Po	wder						
	Solid		Fil	ter Cake		∭ Co	mbinatio	on					
Color:			clear		Od	or:		_			n/d		
Specific Gravity (Water=1):		.911		De	nsity :				7.6			lbs / gal
Does this material of	contain any to	tal phenolic	compound	s?	☐ Ye	s	✓ No	,					
Does this material of	ontain any pa	ıra substitute	d phenoli	compo	unds?	[Yes		✓ No				
Is the Waste subjec	t to the benze	ne waste op	eration NE	SHAP? (40 CFR F	Part 61,	Subpart	FF)		Yes /	~	No	
2812 2813 2	816 2819	2821 282	2 2823	2824	2833	2834	2835	2836	2841	2842	2843	2844	2851
2861 2865 2	869 2873	2874 287	6 2879	2891	2892	2893	2896	2899	2911	3312	4953	4959	9511
Layers :	✓ Singl	le-Phas	∭ Mı	ılti-Phas	se								
Container Type :	✓ Drum	1	Tote		Truck		Other	(expla	in)				
Container Size :	55												
Number Of Units	: 41	— ——											
Is this a USEPA "H If "Yes", then ple	ase complete,	sign and date	the Underl			Yes onstituer	Notes Form		d hereto				

Characteristic for Toxic		_	_	007	
	☐ D008			011	
Characteristics for Toxic	: Organics: D012 thru D0	043 (please list a	li that apply)		
Is this an "F" or "K" List			✓ No		
If "Yes", then please	list ALL applicable code	es:			
Is this a commercial pro 261.33(e) or (f)?	duct or spill cleanup tha	at would carry a "	U" or "P" waste	code under 40 CFR	☐ Yes ✓ No
If "Yes", then please	list ALL applicable code	es:			
Texas State Waste Code	e No : Prod	duct'			
Proper U.S. State Waste	Code No :	N	on-RCRA/Non-	DOT Regulated Materi	al
Class: na	UN/NA :	na	PG:	na	RQ: na
Flash Point	рН	Reactive	Sulfides	Reactive Cyanides	Solids
230	na	r	na mg/l	na mg	// 0 %
Oil and Grease	тос	Zi	nc	Copper	Nickel
48% mg/	na n	ng/l	0 mg/l	0 mg	/I 0 mg/I
SECTION 4. Physical and 6	Shamiaal Data				
SECTION 4: Physical and 0		VDI ESI Kamalagua.		Concenti	ntion
	/ product consists of t	-1-4	erials	Ranges are a	ALCOHOL STORE STOR
-	D1282, C9409, F7	589 add		100	
D.	dall		/		
N.	yly	C9404	(MSE	s attached	
	7589	1SP07	-	watered	-)
OFFICIAL FOR CONTACT POLICY	D-1-	MILRE	,		
SECTION 5: Safety Related If the handling of this w		of enocial protoc	tivo oquinmon	t nlogge evnlain	
std	aste requires the use t	or special protec	uve equipmen	t, picase explain.	
SECTION 6: Attached Supp	orting Documents	-			
List all documents, note	es, data, and/or analysi	is attached to thi	s form as part	of the waste approve	ıl package.
msds					
SECTION 7: Incompatibiliti	oe.				
Please list all incompati					
see msds					
SECTION 8: Generator's Kr	nowledge Documentation	!			
Laboratory analysis of the following generators kn		naracteristics, lis	ted below, WA	AS NOT PERFORMED	based upon the
TCLP Metals :	X				
TCLP Volatilies :	X				
TCLP Semi-Volatiles :	x				
Reactivity :	x				
		2			

Ignitab	ility: <u>x</u>
SECTIO	N 9: Waste Receipt Classification Under 40 CFR 437
Is this n	naterial a wastewater or wastewater sludge ?
If 'YES',	, complete this section
PLEAS	E CHECK THE APPROPRIATE BOX: IF NO APPROPRIATE CATEGORY, GO TO THE NEXT PAGE
Matals	Subcategory: Subpart A
	Spent electroplating baths and/or sludges
	Metal finishing rinse water and sludges
	Chromate wastes
	Air pollution control blow down water and sludges
	Spent anodizing solutions
	ncineration wastewaters
	Waste liquid mercury
	Cyanide-containing wastes greater than 136 mg/l
	Waste acids and bases with or without metals
	Cleaning, rinsing, and surface preparation solutions from electroplating or phospha
	/ibratory deburring wastewater Alkaline and acid solutions used to clean metal parts or equipment
	And and add soldions used to deal metal parts of equipment
Oils Su	bcategory: Subpart B
	Jsed oils
	Dil-water emulsions or mixtures
	Lubricants
	Coolants
	Contaminated groundwater clean-up from petroleum sources
L	Jsed petroleum products
	Dil spill clean-up
	Bilge water
	Rinse/wash waters from petroleum sources
	nterceptor wastes
	Off-specification fuels
	Inderground storage remediation wastes
	ank clean-out from petroleum or oily sources Non-contact used glycols
	Aqueous and oil mixtures from parts cleaning operations
	Vastewater from oil bearing paint washes
	Table 11 and 11
Organic	es Subcategory_Subpart C
	andfill leachate
	Contaminated groundwater clean-up from non-petroleum sources
	Solvent-bering wastes
	Off-specification organic product
_	Still bottoms
	Byproduct waste glycol
	Vastewater from paint washes
	Vastewater from adhesive and/or epoxies formulation
V	Vastewater from organic chemical product operations

Corrosivity:

<u>x</u>

Tank clean-out from organic, non-petroleum sources
(1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory
(2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory
Cadmium: 0.2 mg/L Chromium: 8.9 mg/L Copper: 4.9 mg/L Nickel: 37.5 mg/L
(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory.
☐ Metals Subcatego
☐ Oils Subcatego
☐ Organics Subcategory
SECTION 10: Additional Instruction
If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.
SECTION 11: Generator's Certification
The information contained herein is based on \checkmark generator knowledge and/or \bigcirc analytical data. I hereby cerity that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document.
Authorized Signature : Date :
Printed Name / Title :
CES USE ONLY (DO NOT WRITE IN THIS SPACE) Process Facility Information:
Compliance Officer: Prabhakar Thangudu
Date: 8/25/2008 Status: Approved Rejected
Approval Number : HOU-2956



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NH

MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum C9208

Product Description: Petroleum Product Additive

Product Code: 31227100 **Intended Use:** Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

 24 Hour Health Emergency
 800-726-2015

 Transportation Emergency Phone
 800-424-9300

 Product Technical Information
 800-654-1233

 Supplier General Contact
 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

NFPA Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use



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mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

Give one or two glasses of water if patient is alert and able to swallow. Seek immediate medical attention. Do not induce vomiting.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Smoke, Fume, Nitrogen oxides, Carbon monoxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: 237C (459F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-



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combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid all personal contact. Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: 60°C (140°F) - 65°C (149°F)

Transport Temperature: 55°C (131°F) - 60°C (140°F)

Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** 80°C (176°F)

Storage Pressure: [Ambient]

Suitable Containers/Packing: Drums; Tank Cars; Tank Trucks; Bulk Containers **Suitable Materials and Coatings:** Carbon Steel; Stainless Steel; Zinc; Epoxies

Unsuitable Materials and Coatings: Rubber; Butadiene Rubber; Butyl Rubber; Polyethylene; Styrene

Rubber

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.



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NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.



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SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Form: Clear Color: N/D Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 C): 0.941 15.6°/15.6C

Density (at 15 °C): 939 kg/m³ (7.84 lbs/gal, 0.94 kg/dm³)

Flash Point [Method]: 237C (459F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D

Boiling Point / Range: > 100C (212F)

Vapor Density (Air = 1): N/D

Vapor Pressure: 0.09 kPa (0.68 mm Hg) at 20 C Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/D

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Negligible

Viscosity: 3365 cSt (3365 mm2/sec) at 40 C | 93 cSt (93 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/D Melting Point: N/D Hygroscopic: No

Coefficient of Thermal Expansion: 0.00068 %

Decomposition Temperature: N/D

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY



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Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Еуе	
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised



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incineration at very high temperatures to prevent formation of undesirable combustion products.

, ...

REGULATORY DISPOSAL INFORMATION

RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: CORROSIVITY.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: KECI, DSL, PICCS, AICS, IECSC, ENCS, TSCA, EINECS

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below: None.



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-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL 6 = TSCA 5a2 11 = CA P65 REPRO 16 = MN RTK 2 = ACGIH A17 = TSCA 5e 12 = CA RTK 17 = NJ RTK 3 = ACGIH A28 = TSCA 6 13 = IL RTK 18 = PA RTK 4 = OSHAZ9 = TSCA 12b 14 = LA RTK 19 = RI RTK 10 = CA P65 CARC 5 = TSCA 4 15 = MI 293

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION
N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

No revision information is available.

The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no representation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use; there is no warranty against intellectual property infringement; and Infineum shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.

Internal Use Only

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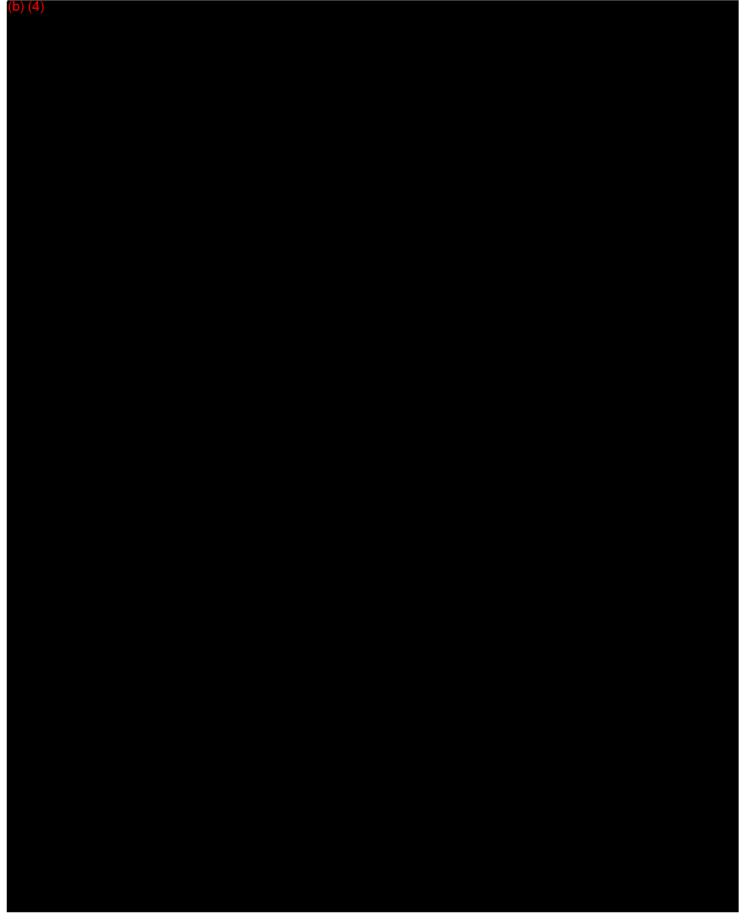
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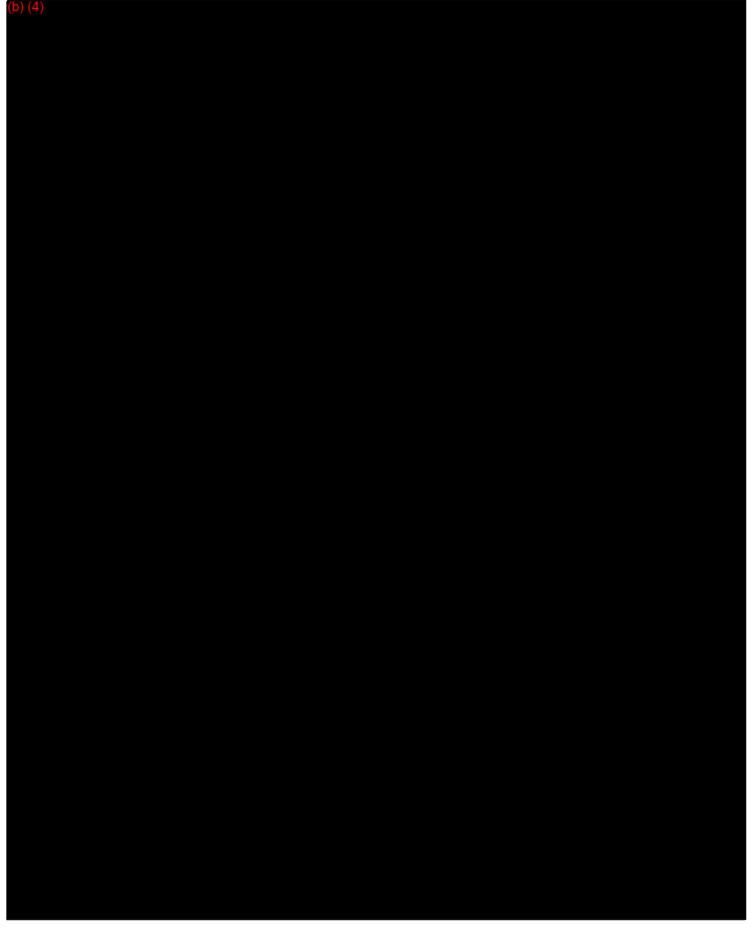
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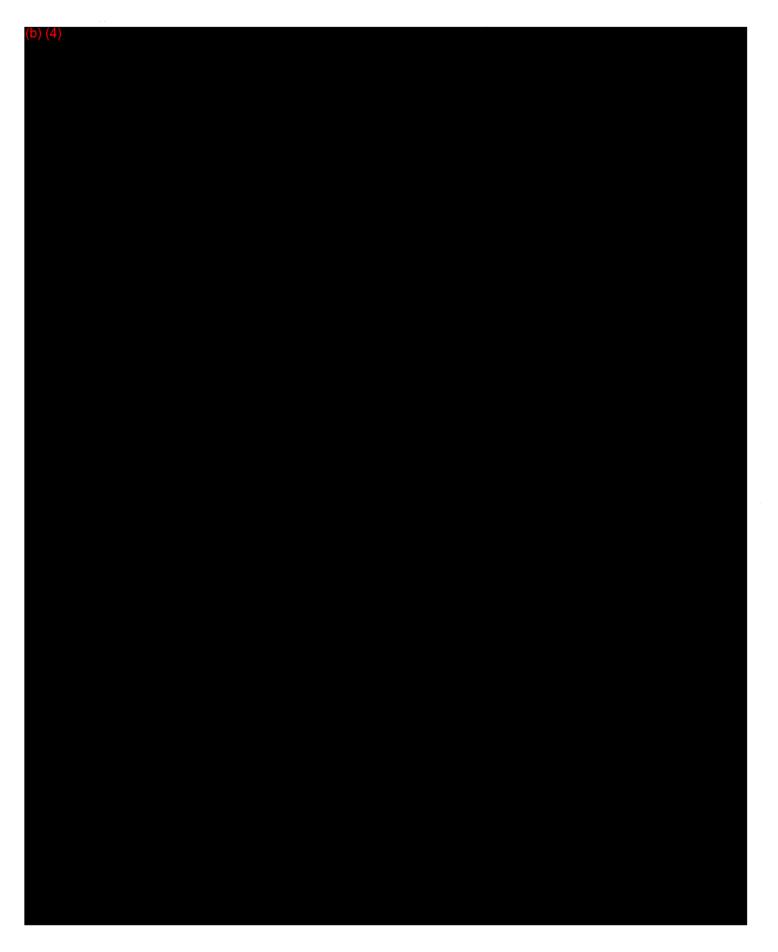


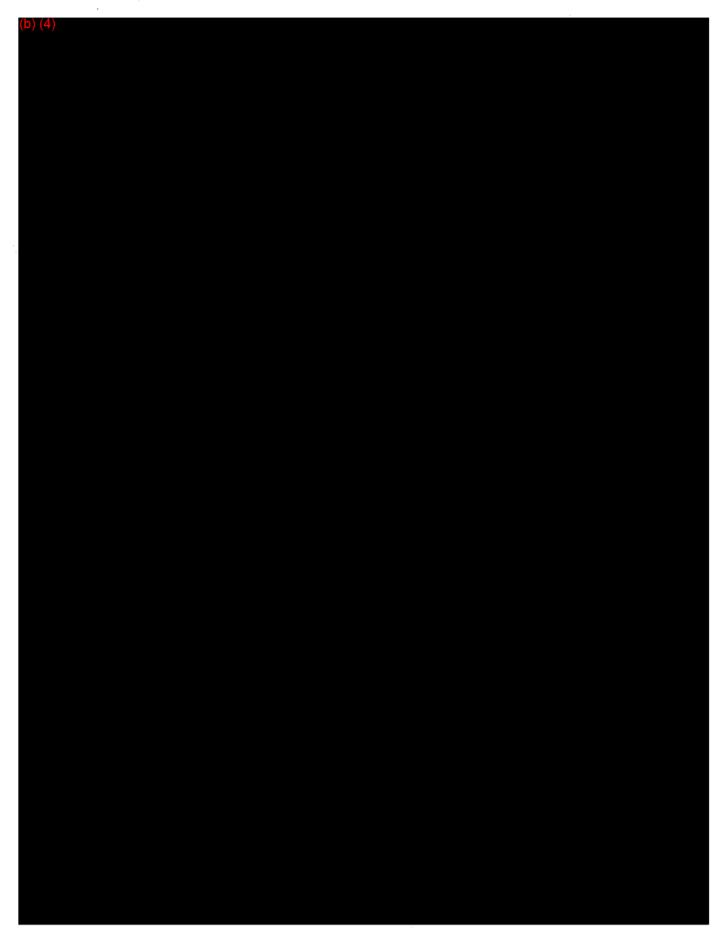






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LAST PAGE



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M

MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum R655

Product Description: Petroleum Product Additive

Product Code: 32785100 **Intended Use:** Fuel additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency Transportation Emergency Phone Product Technical Information 800-726-2015 800-424-9300

Product Technical Information 800-654-1233 Supplier General Contact 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

NFPA Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.



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SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide, Smoke, Fume

FLAMMABILITY PROPERTIES

Flash Point [Method]: >210C (410F) [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other



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shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: 20°C (68°F) - 40°C (104°F)

Transport Temperature: N/D **Transport Pressure:** [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers.

Storage Temperature: 20°C (68°F) - 40°C (104°F)

Storage Pressure: [Ambient]

Suitable Containers/Packing: Drums; Tank Trucks; Tank Cars

Suitable Materials and Coatings: Stainless Steel; Carbon Steel; Viton; Teflon **Unsuitable Containers/Packing:** Butadiene and styrene rubbers; Natural rubber

Unsuitable Materials and Coatings: Natural Rubber; Polyethylene; Nitrile Rubber; High Density Polyethylene(HDPE); Ethylene-proplyene-diene monomer (EPDM); Neoprene; Silicone Rubber; Styrene

Rubber; Chlorosulfonated Polyethylene

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS



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The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.



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GENERAL INFORMATION

Physical State: Liquid

Color: Yellow Odor: Fatty

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 20 C): 0.96

Density (at 15 °C): 960 kg/m³ (8.01 lbs/gal, 0.96 kg/dm³) **Flash Point [Method]:** >210C (410F) [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D Boiling Point / Range: N/D Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Negligible

Viscosity: 65 cSt (65 mm2/sec) at 40 C [Typical] | 9 cSt (9 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Pour Point: -15°C (5°F) [Typical]

Hygroscopic: No

Coefficient of Thermal Expansion: 0.0008 %

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors,
	mist, or fumes which may be irritating to the eyes, nose, throat, or



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	lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Material -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material -- Expected to be inherently biodegradable

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised



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incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, KECI, ENCS, DSL, PICCS, TSCA, EINECS, IECSC

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below: None.



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-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL 6 = TSCA 5a2 11 = CA P65 REPRO 16 = MN RTK 2 = ACGIH A1 7 = TSCA 5e 12 = CA RTK 17 = NJ RTK 3 = ACGIH A28 = TSCA 613 = IL RTK 18 = PA RTK 4 = OSHAZ9 = TSCA 12b 14 = LA RTK 19 = RI RTK 5 = TSCA 4 10 = CA P65 CARC 15 = MI 293

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 06: Notification Procedures - Header was modified.

Section 13: Empty Container Warning was modified.

Section 08: Hand Protection was modified.

Section 07: Handling and Storage - Handling was modified.

Section 07: Loading/Unloading Temperature C(F) was modified.

Section 07: Transport Temperature C(F) was modified.

Section 07: Storage Temperature C(F) was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 06: Notification Procedures was modified.

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Internal Use Only

MHC: 0, 0, 0, 0, 2, 1

DGN: 6002659 (1003940) (NA Core)

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M

MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum G201

Product Description: Petroleum Product Additive

Product Code: 82284101 **Intended Use:** Gear oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

 24 Hour Health Emergency
 800-726-2015

 Transportation Emergency Phone
 800-424-9300

 Product Technical Information
 800-654-1233

 Supplier General Contact
 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

ALKYLATED TALLOW AMINES DIBUTYL HYDROGEN PHOSPHITE Long Chain Alkenyl Amine SULFURISED ISOBUTYLENE

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Combustible. Material can accumulate static charges which may cause an incendiary electrical discharge.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Irritating to skin. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Skin | Eye |

ENVIRONMENTAL HAZARDS

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2

lth: 2

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary



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from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Sulfur oxides, Phosphorus oxides, Carbon monoxide, Hydrogen sulfide, Nitrogen oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: 107C (225F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D

SECTION 6

ACCIDENTAL RELEASE MEASURES



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NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Material will sink. Remove material, as much as possible, using mechanical equipment.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Remove debris in path of spill prior to oiling and remove contaminated debris from shoreline and water surface and dispose of according to local regulations. Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: 20°C (68°F) - 40°C (104°F)

Transport Temperature: 50°C (122°F)

Transport Pressure: [Ambient]

Static Accumulator: This material is a static accumulator.



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STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** 40°C (104°F)

Storage Pressure: [Ambient]

Suitable Containers/Packing: Drums; Tank Trucks; Tank Cars Suitable Materials and Coatings: Stainless Steel; Carbon Steel Unsuitable Containers/Packing: Natural and butyl rubbers; PVC Unsuitable Materials and Coatings: Rubber; Butyl Rubber; PVC

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form Limit / Stand		ndard N		Note	Source	
Hydrogen sulfide	N/A C	Ceiling	20 ppm		N/A	OSHA Z2	
Hydrogen sulfide	N/A	Maximum concentrat ion	50 ppm		N/A	OSHA Z2	
Hydrogen sulfide	N/A	STEL	15 ppm		N/A	ACGIH	
Hydrogen sulfide	N/A	TWA	10 ppm		N/A	ACGIH	
Sulfur oxides	N/A	TWA	13 mg/m3	5 ppm	N/A	OSHA Z1	
Sulfur oxides	N/A	STEL	5 ppm		N/A	ACGIH	
Sulfur oxides	N/A	TWA	2 ppm		N/A	ACGIH	

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator



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selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended.

Eye Protection: Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13,

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: Amber Odor: Strong

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 C): 1.05 15.6°/15.6C

Density (at 15 °C): 1050 kg/m³ (8.76 lbs/gal, 1.05 kg/dm³)

Flash Point [Method]: 107C (225F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D

Boiling Point / Range: > 260C (500F)

Vapor Density (Air = 1): N/D

Vapor Pressure: < 1 kPa (7.5 mm Hg) at 20 C



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Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Negligible

Viscosity: 80 cSt (80 mm2/sec) at 40 C | 9.3 cSt (9.3 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/D Melting Point: N/D Hygroscopic: No

Coefficient of Thermal Expansion: 0.00065 V/VDEGC

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen sulfide, Carbon monoxide, Nitrogen oxides, Phosphorus

oxides, Sulfur oxides

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks		
Inhalation			
Toxicity: LC50 > 5 mg/l	Minimally Toxic.		
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.		
Ingestion			
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.		
Skin			
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.		
Irritation: No end point data.	Irritating to the skin.		
Eye			
Irritation: No end point data.	Irritating and will injure eye tissue.		

CHRONIC/OTHER EFFECTS

Contains:

Sulfurized isobutylene (SIB): Repeated dermal exposures included localized skin irritation, decreased weight



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gain, and enlarged liver in laboratory animals.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be inherently biodegradable

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE



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SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT)

Proper Shipping Name: COMBUSTIBLE LIQUID, N.O.S. (SULFURIZED OLEFIN)

Hazard Class & Division: COMBUSTIBLE LIQUID

ID Number: NA1993 Packing Group: III Marine Pollutant: Yes ERG Number: 128 Label(s): NONE

Transport Document Name: NA1993, COMBUSTIBLE LIQUID, N.O.S. (SULFURIZED OLEFIN),

COMBUSTIBLE LIQUID, PG III, MARINE POLLUTANT

Footnote: This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less.

LAND (TDG)

Proper Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S. (OLEYL AMINE)

Hazard Class & Division: 9

UN Number: 3257 Packing Group: III

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (OLEYL

AMINE)

Hazard Class & Division: 9

UN Number: 3082 Packing Group: III

Label(s): 9

Transport Document Name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

(OLEYL AMINE), 9, PG III

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: PICCS, AICS, KECI, EINECS, ENCS, DSL, TSCA, IECSC

EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Fire. Immediate Health.



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SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations	
DIBUTYL HYDROGEN PHOSPHITE	1809-19-4	18	

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

	OTHER INCORRECTION	The first term of the first of
SECTION 16	OTHER INFORMATION	

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Hazard Identification: Environmental Hazard was modified.

Section 06: Protective Measures was modified.

Section 14: DOT Technical Name - All was modified.

Section 13: Empty Container Warning was modified.

Section 08: Hand Protection was modified.

Section 07: Handling and Storage - Handling was modified.

Section 05: Hazardous Combustion Products was modified.

Section 06: Accidental Release - Spill Management - Land was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 14: Transport Document Name was modified.

Section 15: List Citations Table was modified.

Section 15: List Citation Table - Header was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 14: DOT Footnote was modified.

Section 16: Land Spill was modified.

Section 06: Notification Procedures was modified.

Section 08: Exposure Limits Table was modified.

Composition: Component table was modified.

Section 14: Proper Shipping Name was added.

Section 14: Proper Shipping Name - Header was added.

Section 14: Hazard Class & Division - Header was added.

Section 14: Hazard Class was added.

Section 14: UN Number - Header was added.

Section 14: UN Number was added.

Section 14: Packing Group - Header was added.

Section 14: Packing Group was added.



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Section 14: Label(s) - Header was added.

Section 14: Label(s) was added.

Section 14: Transport Document Name - Header was added.

Section 14: Transport Document Name was added.

Section 14: Proper Shipping Name - Header was added.

Section 14: Proper Shipping Name was added.

Section 14: Hazard Class & Division - Header was added.

Section 14: Hazard Class & Division was added.

Section 14: UN Number - Header was added.

Section 14: UN Number was added.

Section 14: Packing Group - Header was added.

Section 14: Packing Group was added.

Section 14: LAND (TDG) - Header was added.

Section 14: Marine Pollutant - Header was added.

Section 14: Marine Pollutant was added.

Section 16: NA Contains was added.

Section 16: NA Contains - Header was added.

Section 14: IATA Technical Name - All was added.

Section 14: TDG Technical Name - All was added.

Section 14: IATATechnical Name - Close parenthesis was added.

Section 14: TDG Technical Name - Close parenthesis was added.

Section 14: IATA Technical Name - Open parenthesis was added.

Section 14: TDG Technical Name - Open parenthesis was added.

Section 12: Ecological Information - Acute Aquatic Toxicity was added.

Section 12: Ecological Information - Acute Aquatic Toxicity was added.

Section 14: Air (IATA) - Default was deleted.

Section 12: Ecological Information - Ecotoxicity was deleted.

Section 15: TSCA Class 2 Statement was deleted.

PRECAUTIONARY LABEL TEXT:

Contains: OLEYL AMINE

WARNING!

HEALTH HAZARDS

Irritating to eyes. Irritating to skin. **Target Organs:** Skin | Eye |

PHYSICAL HAZARDS

Combustible. Material can accumulate static charges which may cause an incendiary electrical discharge.

PRECAUTIONS

Avoid contact with skin. Avoid contact with eyes.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.



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SPILL/LEAK

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent. Do not touch or walk through spilled material.

Water Spill: Stop leak if you can do it without risk. Report spills as required to appropriate authorities. Material will sink. Remove material, as much as possible, using mechanical equipment.

Not intended or suitable for use in or around a household or dwelling.

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M

MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum C9081

Product Description: Petroleum Product Additive

Product Code: 34712101 **Intended Use:** Seal swell agent

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency Transportation Emergency Phone Product Technical Information 800-726-2015 800-424-9300

exignation 800-424-9300 800-654-1233

Supplier General Contact

800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

SULFUR DIOXIDE

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Irritating to respiratory system. Low order of toxicity.

Target Organs: Lung | Eye |

ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES



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INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Carbon monoxide, Smoke, Fume, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: 110C (230F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.



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PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See Section 3 for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Do not touch or walk through spilled material. Prevent dust cloud. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Water Spill: Stop leak if you can do it without risk. Report spills as required to appropriate authorities. Material will sink. Remove material, as much as possible, using mechanical equipment.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Remove debris in path of spill prior to oiling and remove contaminated debris from shoreline and water surface and dispose of according to local regulations. Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. For Large Spills: Cover spill with plastic sheet or tarpaulin to minimize spreading.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid breathing mists or vapors. Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: 45°C (113°F)

Transport Temperature: 45°C (113°F)

Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** 25°C (77°F) [Ambient]

Storage Pressure: [Ambient]

Suitable Containers/Packing: Drums; Tank Trucks; Tankers; Tank Cars

Suitable Materials and Coatings: Carbon Steel; Stainless Steel

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION



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EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / S	Standard		Note	Source
SULFUR DIOXIDE	N/A	TWA	13 mg/m3	5 ppm	N/A	OSHA Z1
SULFUR DIOXIDE	N/A	STEL	5 ppm		N/A	ACGIH
SULFUR DIOXIDE	N/A	TWA	2 ppm		N/A	ACGIH
Sulfur oxides	N/A	TWA	13 mg/m3	5 ppm	N/A	OSHA Z1
Sulfur oxides	N/A	STEL	5 ppm		N/A	ACGIH
Sulfur oxides	N/A	TWA	2 ppm		N/A	ACGIH

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:



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If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: N/D Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 C): 1.03 15.6°/15.6C

Flash Point [Method]: 110C (230F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D Boiling Point / Range: N/D Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/D

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Negligible

Viscosity: 25 cSt (25 mm2/sec) at 40 C | 4.2 cSt (4.2 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/D Melting Point: N/D **Pour Point:** 0°C (32°F)

Hygroscopic: No

Coefficient of Thermal Expansion: 0.001 %

Decomposition Temperature: N/D

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures.



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MATERIALS TO AVOID: N/D

HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur oxides

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks		
Inhalation			
Toxicity: LC50 > 5 mg/l	Minimally Toxic.		
Irritation: No end point data.	May be irritating to the respiratory tract. The effects are reversible		
Ingestion			
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.		
Skin			
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.		
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.		
Eye			
Irritation: No end point data.	Moderately irritating to the eyes.		

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.



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SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkoxy

heterocyclic ether)

Hazard Class & Division: 9

ID Number: 3082
Packing Group: III
Marine Pollutant: Yes
ERG Number: 171

Label(s): 9

Transport Document Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkoxy

heterocyclic ether), 9, UN3082, PG III

Footnote: This material is not regulated under 49 CFR in a container of 119 gallon capacity or less when transported solely by air or land transportation.

SEA (IMDG)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkoxy

heterocyclic ether)

Hazard Class & Division: 9 EMS Number: F-A, S-F UN Number: 3082



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Packing Group: III
Marine Pollutant: Yes

Label(s): 9

Transport Document Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkoxy

heterocyclic ether), 9, UN3082, PG III., MARINE POLLUTANT

AIR (IATA)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkoxy

heterocyclic ether)

Hazard Class & Division: 9

UN Number: 3082 Packing Group: III

Label(s): 9

Transport Document Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkoxy

heterocyclic ether), 9, UN3082, PG III

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ENCS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
SULFUR DIOXIDE	7446-09-5	1, 4

-- REGULATORY LISTS SEARCHED --

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION



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N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 09: Decomposition Temperature was added. Section 09: Decomposition Temp - Header was added.

PRECAUTIONARY LABEL TEXT:

Contains: SULFUR DIOXIDE

WARNING!

HEALTH HAZARDS

Irritating to eyes. Irritating to respiratory system.

Target Organs: Lung | Eye |

PRECAUTIONS

Avoid breathing mists or vapors. Avoid contact with skin. Avoid contact with eyes.

FIRST AID

Inhalation: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Prevent dust cloud. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Do not touch or walk through spilled material.

Water Spill: Stop leak if you can do it without risk. Report spills as required to appropriate authorities. Material will sink. Remove material, as much as possible, using mechanical equipment. **Use**

Not intended or suitable for use in or around a household or dwelling.

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NHI

MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum C9402

Product Description: Petroleum Product Additive

Product Code: 32432100 **Intended Use:** Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

 24 Hour Health Emergency
 800-726-2015

 Transportation Emergency Phone
 800-424-9300

 Product Technical Information
 800-654-1233

 Supplier General Contact
 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

NFPA Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek



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immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

Give one or two glasses of water if patient is alert and able to swallow. Seek immediate medical attention. Do not induce vomiting.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon monoxide, Sulfur oxides, Smoke, Fume

FLAMMABILITY PROPERTIES

Flash Point [Method]: 150C (302F) [Typical ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it

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up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid all personal contact. Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: 60°C (140°F) - 70°C (158°F)

Transport Temperature: 60°C (140°F) - 70°C (158°F)

Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Nitrogen blanketing of containers is required. Do not store in open or unlabelled containers.

Storage Temperature: $60^{\circ}\text{C} (140^{\circ}\text{F}) - 70^{\circ}\text{C} (158^{\circ}\text{F})$

Storage Pressure: [Ambient]

Suitable Containers/Packing: Drums; Tank Trucks; Tank Cars; Bulk Containers **Suitable Materials and Coatings:** Carbon Steel; Stainless Steel; Zinc; Epoxies

Unsuitable Materials and Coatings: Butadiene Rubber; Butyl Rubber; Rubber; Polyethylene; Styrene

Rubber

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.



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ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional



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data.

GENERAL INFORMATION

Physical State: Liquid

Color: N/D Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 C): 0.943 15.6°/15.6C

Density (at 15.6 °C): 942 kg/m³ (7.86 lbs/gal, 0.94 kg/dm³) **Flash Point [Method]:** 150C (302F) [Typical ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D Boiling Point / Range: 260C (500F)

Vapor Density (Air = 1): N/D

Vapor Pressure:

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/D

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Negligible

Viscosity: 5700 cSt (5700 mm2/sec) at 40 C | 70 cSt (70 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/D Melting Point: N/D Hygroscopic: Yes

Coefficient of Thermal Expansion: 0.00058 %

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or



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	lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by



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the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: CORROSIVITY.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ENCS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below: None.

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK



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5 = TSCA 4

10 = CA P65 CARC

15 = MI 293

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 15: National Chemical Inventory Listing was added.

Section 15: National Chemical Inventory Listing - Header was added.

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum M7188

Product Description: Petroleum Product Additive

Product Code: 80553101 Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

 24 Hour Health Emergency
 800-726-2015

 Transportation Emergency Phone
 800-424-9300

 Product Technical Information
 800-654-1233

 Supplier General Contact
 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

ALKOXYLATED ALKYL PHENOL

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Contact with hot material can cause thermal burns which may result in permanent damage or blindness. Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Irritating to skin. Corrosive to eyes. May cause permanent damage. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Skin | Eye |

ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID: Health: 3 Flammability: 1 Reactivity: 0 HMIS Hazard ID: Health: 3 Flammability: 1 Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.



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SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Carbon monoxide, Smoke, Fume, Carbon dioxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: >100C (212F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: >150°C (302°F)

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES



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In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See Section 3 for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Do not touch or walk through spilled material. Prevent dust cloud. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Report spills as required to appropriate authorities. Material will sink. Remove material, as much as possible, using mechanical equipment.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Remove debris in path of spill prior to oiling and remove contaminated debris from shoreline and water surface and dispose of according to local regulations. Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. For Large Spills: Cover spill with plastic sheet or tarpaulin to minimize spreading.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: [Ambient]

Transport Temperature: [Ambient]

Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

1

STORAGE

Do not store in open or unlabelled containers. Storage Temperature: [Ambient]

Storage Pressure: [Ambient]



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Suitable Containers/Packing: Tank Trucks: Drums: Tank Cars

Suitable Materials and Coatings: Carbon Steel; Stainless Steel; Epoxies

Unsuitable Containers/Packing: Natural and butyl rubbers; Butadiene and styrene rubbers

Unsuitable Materials and Coatings: Polyethylene; Rubber; Butadiene Rubber; Butyl Rubber; Styrene

Rubber

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact with material may occur, safety glasses and face shield are recommended. Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:



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If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Form: Clear Color: Yellow Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 C): 1.03 15.6°/15.6C

Density (at 15 °C): 1027 kg/m³ (8.57 lbs/gal, 1.03 kg/dm³) **Flash Point [Method]:** >100C (212F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: >150°C (302°F) **Boiling Point / Range:** > 300C (572F)

Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/D

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Negligible

Viscosity: [N/D at 40 °C] | 350 cSt (350 mm2/sec) at 20C | 8 cSt (8 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/D Melting Point: N/D

Pour Point: -27°C (-17°F)

Hygroscopic: No

Coefficient of Thermal Expansion: 0.00065 %

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.



Product Name:

Infineum M7188

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CONDITIONS TO AVOID: Excessive heat. Elevated temperatures.

MATERIALS TO AVOID:

Strong oxidizers, Strong Acids, Strong Bases

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/g	Minimally Toxic.
Irritation: No end point data.	Moderately irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data.	Irritating and will injure eye tissue. Corrosive to eyes. May cause permanent damage.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.



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PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material - Expected to be inherently biodegradable

BIOACCUMULATION POTENTIAL

Material -- Has the potential to bioaccumulate.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkyl phenol

ethoxylate)

Hazard Class & Division: 9

UN Number: 3082

EPAHO106000172



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Packing Group:

Label(s): 9

Transport Document Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkyl

phenol ethoxylate), 9, UN3082, PG III

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ENCS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below: None.

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes: Not Applicable

PRECAUTIONARY LABEL TEXT:

DANGER!

HEALTH HAZARDS

Irritating to skin. Corrosive to eyes. May cause permanent damage.

Target Organs: Skin | Eye |

PHYSICAL HAZARDS Contact with hot material can cause thermal burns which may result in permanent damage.



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Thermal burn hazard - contact with hot material may cause thermal burns.

PRECAUTIONS

Avoid contact with skin. Avoid contact with eyes.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Prevent dust cloud. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal. Do not touch or walk through spilled material.

Water Spill: Stop leak if you can do it without risk. Report spills as required to appropriate authorities. Material will sink. Remove material, as much as possible, using mechanical equipment. **Use**

Not intended or suitable for use in or around a household or dwelling.

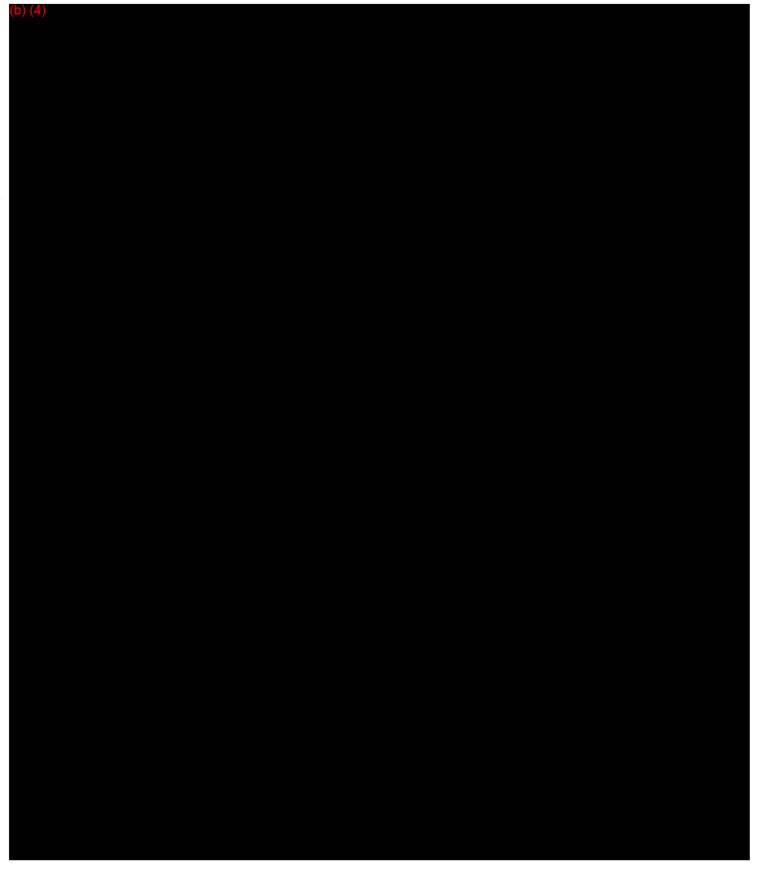
The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no representation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use; there is no warranty against intellectual property infringement; and Infineum shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.

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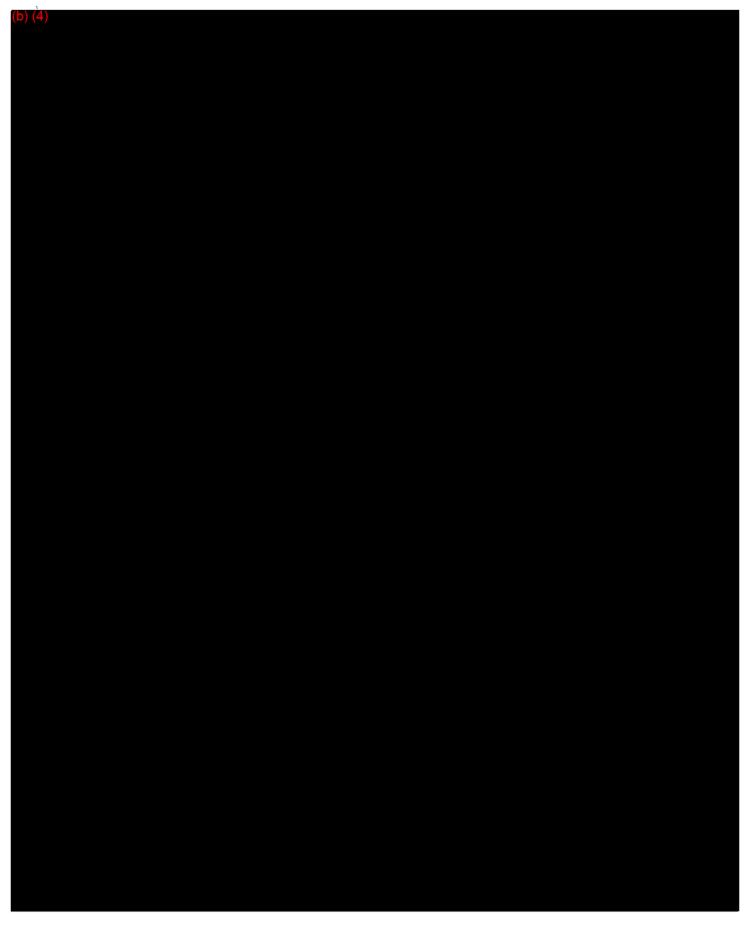
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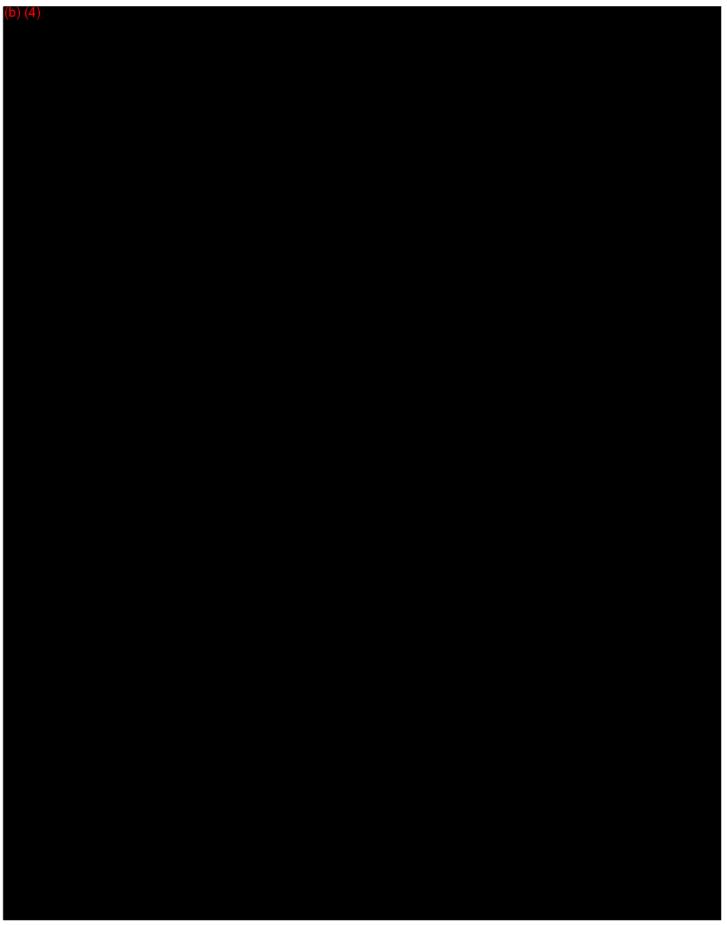
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Page: 3/9

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Page: 4/9

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Page: 5/9

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Page: 6/9

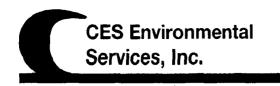
(b) (4)		

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1

LAST PAGE

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4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Material / Product Approval Letter

Date 9/8/2008

Dear Brian Codd

Thank you for choosing CES Environmental Services, Inc. for your material / product recycling needs. The following material has been approved at our facility in Houston, TX. If the material received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2980

Expiration Date 9/8/2010

Producer: Infineum

Address: Park & Brunswick Avenues

Linden, NJ 07036

Material / Product Information

Name of Material / Product Heavy polyamine

Container Type:

Detailed Description of Process Generating or Producing the Material / Product:

Mixture of polyamines

Color:

Odor:

pH: na

Physical State:

Incompatibilities: strong oxidizing agents, acids, epoxides, aldehydes, ketones,

acrylates, organic halides

Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

CES Environmental Services, Inc.

Heavy Polyanine cannot be treated and lisered at CES under finds. The pH may be a DODZ. It so the material will be hargardens. Moderial will need to process to Ph

THIS IS NOT A PRODUCT FOR CES.

CES Environmental Services, Inc.

4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

Shulpe processing it no had. If http://www.cesenvirons
there is a very strong amonia TCEQ Industrial Solid Waste
odor it has be hardled a couple of arms of 1 hm. TCEQ Industrial Solid Waste Permit No: 30948

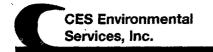
ISWR No: 30900

Sl Cannot goto Fuels or ww.

SECTION 1: Materi	al Producer Inform	ation				
Company:	Infineum USA L.P.					
Address:	Park & Brunswick Avenues-P.O. Box 719					
City, State, Zip:	908-474-7273Linden, NJ 07036					
Contact:	Nick Barboza Title: Logistcs Engineer					
Phone No:	908-474-3084		Fax No:	908-474-		
24/hr Phone:						
U.S. EPA I.D. No:						
State I.D.			SIC Code:			
SECTION 2: Billing Company: Address:	Information – 🛛 Sa	ame as Above				
City, State, Zip:						
Contact:		Title:				
Phone No:		Fax No	·			
CECTION 2: C	.1 Danamin 41 - 1 - 6 41	Madadal / Dec 3 - 4				
SECTION 3: Genera	il Description of the	Material / Product				
Name of Material / Pr Detailed Description of		amine ng or Producing the M	aterial / Product:]	Mixture of l	<u>Polyamines</u>	
Physical State:	☑ Liquid☐ Solid	☐ Sludge ☐ Filter Cake	☐ Powder ☐ Combination	n		
Color:	0	dor:				
Specific Gravity (wat	er=1): <u>1.02</u>	Density: 8.5 lbs/gal				
Does this material con	ntain any total phen	olic compounds? 🔲 Y	es 🛭 No			
Does this material con	ntain any para subst	ituted phenolic compo	unds? 🗌 Yes 🏻 🗵	☑ No		
Layers:	Single-phase	☐ Multi-phase	•			
Container Type:	□ Drum	☐ Tote	Truck	\Box	Other (explain)	
• •		10tc	Huck		Omei (expiam)	
Container Size:	<u>55 gal</u>					
Frequency:	☐ Weekly	☐ Monthly	Quarterly		Yearly	
Number of Units (con	tainers): 21	Other:				
•	- Q	2 d +				
Proper U.S. DOT Ship	pping Name: $\frac{-1}{2}$	MOUNT ALAA AA	DOUS, NON	1000	1c. kall	
Class:	UN/NA	MAN TATOLIK	PG:	<u>s cry</u>	RQ:	
LIASS.	UN/NA	" MA	لله- ٢٠٠	1A		

1

302f	pH n/a	N/A	N/A		olids %	
Dil&Grease	TOC	Zinc	Copper	Nickel	/0	
mg/l	mg/l	mg/l	mg/l	mg/	1	
SECTION 4: Phy	ysical and Chemica				WYSEA	
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	1	7		100 10		
						
ECTION 5: Saf	ety Related Data					
f the handling of	this material / pro	duct requires the use of s	pecial protective equip	nent, please exr	olain.	
	dard f	PE			- 	
	•	Da annua an da				
- <u>-</u> -	ached Supporting l					
List all document	s, notes, data, and/o	or analysis attached to this	s form as part of the m	aterial / produc	t profile.	
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MS ECTION 7: Inc	ompatibilities					r
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PROCESS FACILITY INFORMATION (CES USE ONLY!!)

1.	Base Pricing (including freight):
	Charge \$60/drum for disposal.
2.	Contamination I imits (maximum limit hefore synchanges apply)
4.	Contamination Limits (maximum limit before surcharges apply):
i	
ı	
3.	Surcharge Pricing:
4.	Special Testing Requirements:
!	TOU, PH, FLOW WIRE HO, ASKE, Clay
. !	all that and
ļ	pt, Flash point on water extraction
	and when extraction
i	
5.	Treatment and Handling Protocol: 1st Claice: Part with CES NON-thaz. Fine! L Sludge box - it very strong ammonia older only 1-2 drums can be handled at a time.
	1 Classics and the state of
٦٢	I Dludge DOX - it very strong ammonia over only 1-1 drums can be handled
	at a time.
,	
6.	Treated Wastewater Discharge Subcategory:
ļ	☐ Subcategory A ☐ Subcategory B ☐ Subcategory C
	Subcategory A Subcategory B Subcategory C



PROCESS FACILITY INFORMATION (CES USE ONLY!!)

7.	Tests for	Product	Recovere	d/Recycled	(if applicable):

Suitability for CES Roo Non-Haz. Fuel

8. Management for Product Recovered/Recycled (if applicable);

Goes into CES Non-Haz fuels. Mix with other CES, no adverse reactions

Infineum

DATE PREPARED: MAY 9, 2000 MSDS NO.: 32977000

HEAVY POLYAMINE

MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:

Strong oxidizing agents.
Acids, epoxides, aldehydes, ketones, acrylates and organic halides.

HAZARDOUS DECOMPOSITION PRODUCTS:

Ammonia, Ethylenediamine, Diethylenetriamine

SECTION 11 TOXICOLOGICAL INFORMATION

Please refer to Section 3 for available information on potential health effects.

SECTION 12 ECOLOGICAL INFORMATION

No specific ecological data are available for this product. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting information.

SECTION 13 DISPOSAL CONSIDERATIONS

Please refer to Sections 5, 6 and 15 for disposal and regulatory information.

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT): This product is not DOT regulated.

SECTION 15 REGULATORY INFORMATION

TSCA-

All of the components of this product are listed on the TSCA Inventory.

CERCLA:

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Infineum

DATE PREPARED: MAY 9, 2000 MSDS NO.: 32977000

HEAVY POLYAMINE

If this product is accidentally spilled, it is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act. We recommend you contact local authorities to determine if there may be other local reporting requirements.

SARA TITLE III:

Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories:

Immediate health, Delayed Health.

This information may be subject to the provisions of the Community Right-to-Know Reporting Requirements (40 CFR 370) if threshold quantity criteria are met.

This product does not contain Section 313 Reportable Ingredients.

SECTION 16 OTHER INFORMATION

HAZARD RATING SYSTEMS:

This information is for people trained in:
National Paint & Coatings Association's (NPCA)
Hazardous Materials Identification System (HMIS)
National Fire Protection Association (NFPA 704)
Identification of the Fire Hazards of Materials

	NPCA-HMIS	NFPA 704	KEY	
HEALTH	3	3	4 = Severe	
FLAMMABILI	TY 1	1	3 = Serious	
REACTIVITY	0	0	2 = Moderate	
			1 = Slight	
			0 = Minimal	

CAUTION: HMIS ratings are based on a 0-4 rating scale with 1 representing minimal hazards or risks, and 4 representing significant hazards or risks. Recommended HMIS ratings should not be used in the absence of a fully implemented HMIS hazard communication program.

REVISION SUMMARY:

Since September 10, 1999 this MSDS has been revised in Section(s): 2, 3, 7, 8, 14

REFERENCE NUMBER:

SUPERSEDES ISSUE DATE:

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Infineum

DATE PREPARED: MAY 9, 2000 MSDS NO.: 32977000

HEAVY POLYAMINE

HDHA-B-11843

September 10, 1999

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.

LAST PAGE

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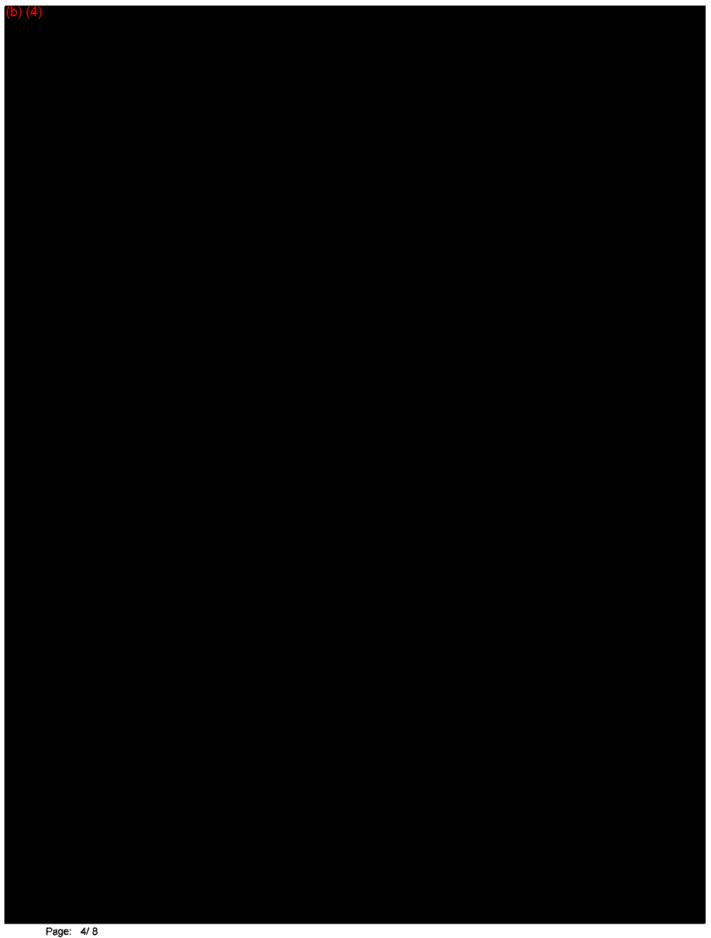
24 drums 21 Drums on Mich 8/15

MATERIAL SAFETY DATA SHEET

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- 1

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Revision Date: 04Mar2008

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum F7589

Product Description: Petroleum Product Additive

Product Code: 33977100 Intended Use: Fuel additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

 24 Hour Health Emergency
 800-726-2015

 Transportation Emergency Phone
 800-424-9300

 Product Technical Information
 800-654-1233

 Supplier General Contact
 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

HEAVY AROMATIC SOLVENT ALKYL ALCOHOL KEROSENE

Hazardous Constituent(s) Contained in Complex Substance(s)

NAPHTHALENE

PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Combustible. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited. Material can accumulate static charges which may cause an incendiary electrical discharge.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Irritating to skin. Possible human cancer hazard. Danger of adverse health effects by a single exposure. May be irritating to the eyes, nose, throat, and lungs. May cause central nervous system depression.

Target Organs: Nervous system | Lung | Skin | Eye |

ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



Revision Date: 04Mar2008

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NFPA Hazard ID: HMIS Hazard ID:

Health: 2

Flammability: 2

Reactivity: 0

Health: 2*

Flammability: 2

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Combustible. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Carbon monoxide, Nitrogen oxides, Smoke, Fume, Carbon dioxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: 72C (162F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D



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Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Prevent dust cloud. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. For Large Spills: Cover spill with plastic sheet or tarpaulin to minimize spreading.

SECTION 7

HANDLING AND STORAGE

1

HANDLING

Avoid contact with skin. Avoid contact with eyes. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Use proper bonding and/or grounding



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procedures. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source).

Loading/Unloading Temperature: -30°C (-22°F) - 54°C (129°F)

Transport Temperature: N/D **Transport Pressure:** N/D

Static Accumulator: This material is a static accumulator.

STORAGE

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded. Drums must be grounded and bonded and equipped with self-closing valves, pressure vacuum bungs and flame arresters.

Storage Temperature: -30°C (-22°F) - 54°C (129°F)

Storage Pressure: N/D

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / Standard			Note	Source
HEAVY AROMATIC SOLVENT	Inhalable	TWA	17 ppm	100 mg/m3	N/A	Supplier
ALKYL ALCOHOL	N/A	TWA	50 ppm		N/A	Supplier
NAPHTHALENE	N/A	TWA	50 mg/m3	10 ppm	N/A	OSHA Z1
NAPHTHALENE	Inhalable	STEL	15 ppm	79 mg/m3	N/A	Supplier
NAPHTHALENE	Inhalable	TWA	10 ppm	52 mg/m3	N/A	Supplier
PSEUDOCUMENE (1,2,4- TRIMETHYLBENZENE)	N/A	TWA	25 ppm		N/A	ACGIH

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.



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Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate. gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended.

Eye Protection: Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: Amber Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density: 0.909

Density (at 15 °C): 909 kg/m³ (7.59 lbs/gal, 0.91 kg/dm³)

Flash Point [Method]: 72C (162F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A



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Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 7 cSt (7 mm2/sec) at 40 C | 18 cSt (18 mm2/sec) at 20C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Pour Point: -48°C (-55°F)

Coefficient of Thermal Expansion: 0.00079 V/VDEGC

Decomposition Temperature: N/D

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Open flames and high energy ignition sources. Do not heat above flashpoint.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks	
Inhalation		
Toxicity: No end point data.	May cause central nervous system effects.	
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.	
Ingestion		
Toxicity: No end point data.	Minimally Toxic.	
Skin		
Toxicity: No end point data.	Minimally Toxic.	
Irritation: No end point data.	Irritating to the skin.	
Eye		
Irritation: No end point data.	Irritating and will injure eye tissue.	

CHRONIC/OTHER EFFECTS



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Contains:

Kerosene: Carcinogenic in animal tests. Lifetime skin painting tests produced tumors, but the mechanism is due to repeated cycles of skin damage and restorative hyperplasia. This mechanism is considered unlikely in humans where such prolonged skin irritation would not be tolerated. Did not cause mutations In vitro. Inhalation of vapors did not result in reproductive or developmental effects in laboratory animals. Inhalation of high concentrations in animals resulted in respiratory tract irritation, lung changes and some reduction in lung function. Non-sensitizing in animal tests.

NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.

Additional information is available by request.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
NAPHTHALENE	91-20-3	5

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC 2 = NTP SUS 3 = IARC 1

5 = IARC 2B

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY Not determined.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used



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product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT)

Proper Shipping Name: COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM DISTILLATES)

Hazard Class & Division: COMBUSTIBLE LIQUID

ID Number: NA1993 Packing Group: III Marine Pollutant: Yes ERG Number: 128 Label(s): NONE

Transport Document Name: NA1993, COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM DISTILLATES),

COMBUSTIBLE LIQUID, PG III, RQ NAPHTHALENE

Footnote: This material is not regulated under 49 CFR in a container of 119 gallon capacity or less when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically listed as a hazardous substance.

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkyl (C3-C5)

Benzenes)

Hazard Class & Division: 9

UN Number: 3082 Packing Group: III Label(s): 9

Transport Document Name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

(Alkyl (C3-C5) Benzenes), 9, PG III

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: DSL, ENCS, AICS, IECSC, KECI, EINECS, TSCA



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EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Fire. Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value	
NAPHTHALENE	91-20-3	5 - 9.9%	
PSEUDOCUMENE (1,2,4-	95-63-6	1 - 4.9%	
TRIMETHYLBENZENE)			

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
ALKYL ALCOHOL	68526-85-2	17
KEROSENE	8008-20-6	17, 19
NAPHTHALENE	91-20-3	4, 5, 10, 13, 16, 17, 18, 19
PSEUDOCUMENE (1,2,4- TRIMETHYLBENZENE)	95-63-6	1, 13, 16, 17, 18, 19
TRACE METAL IMPURITIES	N/A	10, 11
TRACE REPORTABLE AROMATIC COMPOUNDS	None	10, 11

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

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N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 06: Protective Measures was modified.

Section 06: Notification Procedures - Header was modified.

Section 13: Empty Container Warning was modified.

Section 08: Hand Protection was modified.

Section 07: Loading/Unloading Temperature C(F) was modified.

Section 07: Transport Temperature C(F) was modified.

Section 07: Storage Temperature C(F) was modified.



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Section 05: Hazardous Combustion Products was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 15: List Citations Table was modified.

Section 15: SARA (313) TOXIC RELEASE INVENTORY - Table was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 06: Notification Procedures was modified. Section 08: Exposure Limits Table was modified.

PRECAUTIONARY LABEL TEXT:

Contains: ALKYL ALCOHOL, KEROSENE, NAPHTHALENE, HEAVY AROMATIC SOLVENT, PSEUDOCUMENE (1.2.4-TRIMETHYLBENZENE)

WARNING!

HEALTH HAZARDS

Irritating to eyes. Irritating to skin. Possible human cancer hazard. Danger of adverse health effects by a single exposure.

Target Organs: Nervous system | Lung | Skin | Eye |

PHYSICAL HAZARDS

Combustible. Material can accumulate static charges which may cause an incendiary electrical discharge.

PRECAUTIONS

Avoid contact with skin. Avoid contact with eyes. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Use proper bonding and/or grounding procedures.

FIRST AID

Eve: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Oral: Seek immediate medical attention. Do not induce vomiting.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Prevent dust cloud. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent. Do not touch or walk through spilled material.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.



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Use

Not intended or suitable for use in or around a household or dwelling.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no representation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use; there is no warranty against intellectual property infringement; and Infineum shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.

Internal Use Only

MHC: 0, 0, 1, 2, 4, 1

DGN: 6003565 (1013117) (NA Core)

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum R664

Product Description: Petroleum Product Additive

Product Code: 71154100, 71154100

Intended Use: Fuel additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency **Transportation Emergency Phone Product Technical Information**

Supplier General Contact

800-726-2015 800-424-9300

800-654-1233 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC

Hazardous Constituent(s) Contained in Complex Substance(s)

NAPHTHALENE

PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Combustible. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited.

POTENTIAL HEALTH EFFECTS

Repeated exposure may cause skin dryness or cracking. Possible human cancer hazard. Danger of adverse health effects by a single exposure. May be irritating to the eyes, nose, throat, and lungs. May cause central nervous system depression.

Target Organs: Nervous system | Skin |

ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability: 2

Reactivity: 0

HMIS Hazard ID:

Health: 2*

Flammability: 2

Reactivity: 0



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NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately,

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Combustible.

Hazardous Combustion Products: Carbon dioxide, Smoke, Fume, Carbon monoxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: <=62C (144F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/E

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES



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NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Prevent dust cloud. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. For Large Spills: Cover spill with plastic sheet or tarpaulin to minimize spreading.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Use proper bonding and/or grounding procedures. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: -20°C (-4°F) - 40°C (104°F)



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Transport Temperature: N/D **Transport Pressure:** N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded. Drums must be grounded and bonded and equipped with self-closing valves, pressure vacuum bungs and flame arresters.

Storage Temperature: <= 40°C (104°F)

Suitable Materials and Coatings: Stainless Steel; Carbon Steel; Teflon; Viton

Unsuitable Materials and Coatings: Polyethylene; Natural Rubber; Nitrile Rubber; High Density Polyethylene(HDPE); Ethylene-proplyene-diene monomer (EPDM); Styrene-Butadiene Rubber(BUNA-S); Neoprene; Silicone Rubber; Chlorosulfonated Polyethylene

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / S	tandard		Note	Source
NAPHTHALENE	N/A	TWA	50 mg/m3	10 ppm	N/A	OSHA Z1
NAPHTHALENE	Inhalable	STEL	15 ppm	79 mg/m3	N/A	Supplier
NAPHTHALENE	Inhalable	TWA	10 ppm	52 mg/m3	N/A	Supplier
PSEUDOCUMENE (1,2,4-	N/A	TWA	25 ppm		N/A	ACGIH
TRIMETHYLBENZENE)						
SOLVENT NAPHTHA (PETROLEUM),	Inhalable	TWA	17 ppm	100 mg/m3	N/A	Supplier
HEAVY AROMATIC						

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

1

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator



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selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: Amber Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 60 F): 0.93

Density (at 15 °C): 930 kg/m³ (7.76 lbs/gal, 0.93 kg/dm³) **Flash Point [Method]:** <=62C (144F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A Vapor Density (Air = 1): N/D



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Vapor Pressure: 0 kPa (0 mm Hg) at 20 C [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 15 cSt (15 mm2/sec) at 40 C [Typical] | 94 cSt (94 mm2/sec) at 0C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Coefficient of Thermal Expansion: 0.00081 V/VDEGC [Typical]

Decomposition Temperature: N/D

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Open flames and high energy ignition sources. Elevated temperatures.

MATERIALS TO AVOID: Strong oxidizers, Mineral Acids

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks		
Inhalation			
Toxicity: LC50 > 5 mg/l	May cause central nervous system effects.		
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, lungs.		
Ingestion			
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.		
Skin			
Toxicity: LD50 > 2000 ml/kg	Minimally Toxic.		
Irritation: No end point data.	May dry the skin leading to discomfort and dermatitis.		
Eye			
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.		

CHRONIC/OTHER EFFECTS

Contains:

NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells,



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anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.

Additional information is available by request.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
NAPHTHALENE	91-20-3	5

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC 3 = IARC 1 5 = IARC 2B 2 = NTP SUS 4 = IARC 2A 6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

More volatile component -- Expected to partition to water. Some partitioning to sediment and wastewater solids. Minimally volatile.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be readily biodegradable.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used



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product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT)

Proper Shipping Name: COMBUSTIBLE LIQUID, N.O.S. (Heavy Aromatic Solvent)

Hazard Class & Division: COMBUSTIBLE LIQUID

ID Number: NA1993 Packing Group: III

Product RQ: 2226.72 lbs - NAPHTHALENE

ERG Number: 128 Label(s): NONE

Transport Document Name: COMBUSTIBLE LIQUID, N.O.S. (Heavy Aromatic Solvent), COMBUSTIBLE

LIQUID, NA1993, PG III (RQ NAPHTHALENE)

Footnote: This material is not regulated under 49 CFR in a container of 119 gallon capacity or less when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically listed as a hazardous substance.

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: DSL, IECSC, ENCS, EINECS, TSCA, KECI

EPCRA: This material contains no extremely hazardous substances.

CERCLA:

Chemical Name	CAS Number	Typical Value	Component RQ	Product RQ
NAPHTHALENE	91-20-3	1.0 - 4.9%	100 lbs	2226.72 lbs



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SARA (311/312) REPORTABLE HAZARD CATEGORIES: Fire. Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value	
NAPHTHALENE	91-20-3	1.0 - 4.9%	
PSEUDOCUMENE (1,2,4-	95-63-6	1.0 - 4.9%	
TRIMETHYLBENZENE)			

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
NAPHTHALENE	91-20-3	4, 5, 10, 13, 16, 17, 18, 19
PSEUDOCUMENE (1,2,4-	95-63-6	1, 13, 16, 17, 18, 19
TRIMETHYLBENZENE)	<u> </u>	
TRACE METAL IMPURITIES	N/A	10, 11
TRACE REPORTABLE	None	10, 11
AROMATIC COMPOUNDS		

-- REGULATORY LISTS SEARCHED --

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFO	RMATION	

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 06: Protective Measures was modified.

Section 11: Chronic Tox - Component - U.S. Infineum - Header was modified.

Section 09: Form - Header was deleted.

Section 09: Physical State was deleted.

Section 09: Physical State was modified.

Section 09: Hygroscopic - Header was deleted.

Section 09: Hygroscopic was deleted.

Section 08: Hand Protection was modified.

Section 09: Vapor Pressure was modified.

Section 07: Handling and Storage - Handling was modified. Hazard Identification: Physical/Chemical Hazard was modified.

Section 07: Loading/Unloading Temperature C(F) was modified.

Hazard Identification: NFPA Health was modified.

Hazard Identification: HMIS Health was modified.

Section 07: Transport Temperature C(F) was modified.

Section 07: Transport Pressure - Header was added.



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Section 07: Transport Pressure kPa was added.

Section 07: Storage Temperature C(F) was modified.

Section 07: Static Accumulator was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 09: Relative Density - Header was modified.

Section 09: Flash Point C(F) was modified.

Section 10: Conditions to Avoid was added.

Section 14: Transport Document Name was added.

Section 15: List Citations Table was modified.

Section 15: List Citation Table - Header was modified.

Section 15: SARA (313) TOXIC RELEASE INVENTORY - Table was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 09: Relative Density was added.

Section 16: Physical Hazards additional was deleted.

Section 06: Notification Procedures was modified.

Section 09: Decomposition Temperature was added.

Section 09: Decomposition Temp - Header was added.

Section 07: Suitable Containers was deleted.

Section 07: Suitable Containers - Header was deleted.

Section 15: TSCA Class 2 Statement was deleted.

Section 11: Chronic Tox - Component - U.S. Infineum was added.

Section 13: Empty Container Warning was modified.

PRECAUTIONARY LABEL TEXT:

Contains: NAPHTHALENE, SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC, PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)

WARNING!

HEALTH HAZARDS

Repeated exposure may cause skin dryness or cracking. Possible human cancer hazard. Danger of adverse health effects by a single exposure.

Target Organs: Nervous system | Skin |

PHYSICAL HAZARDS

Combustible.

PRECAUTIONS

Avoid contact with skin. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Use proper bonding and/or grounding procedures.

FIRST AID

Oral: Seek immediate medical attention. Do not induce vomiting.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.



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SPILL/LEAK

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Prevent dust cloud. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent. Do not touch or walk through spilled material.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Use

Not intended or suitable for use in or around a household or dwelling.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no representation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use; there is no warranty against intellectual property infringement; and Infineum shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.

Internal Use Only

MHC: 0, 0, 1, 0, 1, 1

DGN: 7055719 (1009859) (NA Core)

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Must have an outled for the perdued.

These are a lot of druns to be nixed to gether.

4904 Griggs Road

The PFI says pay 8,50/Jel and an paparount fount TX 77021

Tel. (713) 676-1460

Services, Inc. This material roust have operating fax. (713) 676-1460

Meeds Mant. Review. Thick Material JRP

Material / Product Approval Letter

Date 12/19/2008

Dear Brian Codd

Thank you for choosing CES Environmental Services, Inc. for your material / product recycling needs. The following material has been approved at our facility in Houston, TX. If the material received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # HOU-2956

Expiration Date 8/25/2010

Producer: Infineum

Address: Park & Brunswick Avenues

Linden, NJ 07036

Material / Product Information

Name of Material / Product Lube Oil Additive

Container Type:

Detailed Description of Process Generating or Producing the Material / Product:

Petroleum product additive

Color: clear

Odor: n/d

pH: na

Adding MSDS

Physical State:

Incompatibilities: see msds

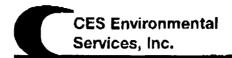
Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



4904 Griggs Road Phone: (713) 676-1460

Houston, TX 77021 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

Infineum USA L.P.	SECTION 1: Mate	rial Producer Inforn	nation					
City, State, Zip: 908-474-7273Linden, NI 07036 Title: Logistes Engineer Phone No: 908-474-3084 Fax No: 908-474-7273 24/hr Phone: CES 713-676-1460 U.S. EPA I.D. No: SIC Code:	Company:	Infineum USA L.P	· · · · · · · · · · · · · · · · · · ·					
Contact: Nick Barboza	Address:	Park & Brunswick	Avenues-P.C	D. Box 719				
Phone No:	City, State, Zip:	908-474-7273Lind	en, NJ 07036					
24/hr Phone:	Contact:	Nick Barboza			Title:	Logistcs	Engineer	
U.S. EPA I.D. No: State I.D. SIC Code: SECTION 2: Billing Information	Phone No:	908-474-3084			Fax No:			
SECTION 2: Billing Information — Same as Above Company: Infineum USA L.P. Address: Park & Brunswick Avenues - P.O. Box 7247-8702 City, State, Zip: Philadelphia, PA 19170-8702 Contact: Mary C. Palis Phone No: 1-800-654-1233 x 5212 Fax No: 908-474-7262 SECTION 3: General Description of the Material / Product Name of Material / Product: Lube Oil Additive Detailed Description of Process Generating or Producing the Material / Product: Petroleum Product Additive Physical State: Liquid Sludge Powder Solid Filter Cake Combination Color: clear Odor: hydrocarbon Specific Gravity (water=1): 911-1 Does this material contain any para substituted phenolic compounds? Yes No Layers: Single-phase Multi-phase Container Type: Drum Tote Truck Other (explain) Container Size: 55 Frequency: Weekly Monthly Quarterly Yearly	24/hr Phone:	CES 713-676-1460)		_			
SECTION 2: Billing Information — Same as Above Company: Infineum USA L.P. Address: Park & Brunswick Avenues - P.O. Box 7247-8702 City, State, Zip: Philadelphia, PA 19170-8702 Contact: Mary C. Palis	U.S. EPA I.D. No:				_			
Infineum USA L.P. Address:	State I.D.				SIC Code:			
City, State, Zip:	Company:	Infineum USA L.P.						
Contact:	Address:			. Box 7247-870)2			
Phone No: 1-800-654-1233 x 5212	City, State, Zip:	Philadelphia, PA 19	170-8702	·			·	
Name of Material / Product: Lube Oil Additive	Contact:	Mary C. Palis		Title:	_CSR			
Name of Material / Product: Lube Oil Additive Detailed Description of Process Generating or Producing the Material / Product: Petroleum Product Additive Physical State:	Phone No:	1-800-654-1233 x 52	212	Fax No:	908-474-7262	,		
Specific Gravity (water=1): 911-1 Does this material contain any total phenolic compounds?	Name of Material / Detailed Description	Product: <u>Lube Oil A</u> n of Process Generati	dditive ing or Produ	cing the Mate	Powder		Product Additive	
Does this material contain any total phenolic compounds?	Color: clear	C)dor: <u>hydroc</u>	<u>arbon</u>				
Does this material contain any para substituted phenolic compounds?	Specific Gravity (wa	ater=1): <u>.911-1</u>						
Layers: Single-phase Multi-phase Container Type: Drum Tote Truck Other (explain) Container Size: 55 Quarterly Yearly Proper U.S. DOT Shipping Name: Non-Hazardous, Non-Regulated Liquid					_	7 N.		
Container Type: Drum Tote Truck Other (explain) Container Size: 55	Does this material c	ontain any para suos	titutea pnen	oue compound	is: Tres 6	7 140		
Container Size: 55 Frequency: Weekly Monthly Quarterly Yearly Proper U.S. DOT Shipping Name: Non-Hazardous, Non-Regulated Liquid	Layers:	Single-phase	ī	Aulti-phase				
Proper U.S. DOT Shipping Name: Non-Hazardous, Non-Regulated Liquid			Tote	_	Truck		Other (explain)	
	Frequency:	☐ Weekly	⊠ Mon	thly [Quarterly		Yearly	
Class: UN/NA: PG: RQ:	Proper U.S. DOT S	nipping Name:	Non-H	azardous, Non-	-Regulated Liqui	d		, <u></u>
	Class:	UN/N	A:		PG:		RQ:	

Flash Point 230	рН 5-9	N/A	N/A	Solids 0%
Oil&Grease	TOC	Zinc	Copper	Nickel
48%mg/l	N/Anig/l	N/Amg/l	N/Amg/I	N/Anig/I

SECTION 4: Physical and Chemical Data

COMPONENTS DANLE	Concentration	Units
The material / product consists of the following materials	Ranges are acceptable	or %
D1282,C9409,F7589,R664,C4904, ISPO2, M7188, C9018, R655, G201	0-100	%
C9081, C9402		
Added 12/18/08		
T4005, D2344, P5198, P5251, V387, P5315, D3423, S951, C9220		
T4271, T4028, T4545, T4558, D2371, C9433, C9235, M7121		

SECTION 5: Safety Related Data

If the handling of this material / product requires the use of special protective equipment, please explain. Standard PPE

SECTION 6: Attached Supporting Documents

List all documents, notes, data, and/or analysis attached to this form as part of the material / product profile. <u>MSDS</u>

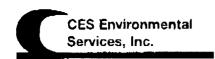
SECTION 7: Incompatibilities

Please list all incompatibilities (if any):

Excessive heat & Strong oxidizers, Strong Acids

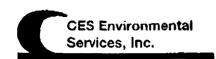
SECTION 8: Material Producer's Certification

The information contained herein is based on \boxtimes generator knowledge and/or \square attached description is complete and accurate to the best of my knowledge and omissions of composition properties exist and that all known or suspected hazard	ability to determine that no deliberate or willful
tested are representative of all materials described by this document.	
Authorized Signature: Bria Codd SITE LOGISTICS LEAD 6	Date: 142408
Printed Name/Title: BRIAN CODD SITE LOGISTICS LEADS	<u>k</u>
CES USE ONLY (DO NOT WRITE IN THIS SPACE)	
Technical Manager:	
Date: Approved Rejected	
Approval Number:	



PROCESS FACILITY INFORMATION (CES USE ONLY!!)

1.	Base Pricing (including freight):
>	Pay \$0.50 / gallon, Charge for Steam \$45 / hour, Railcar Switching - TBD
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2.	Contamination Limits (maximum limit before surcharges apply):
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3.	Surcharge Pricing:
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	Sugaint Teasing Despisements
49. [Special Testing Requirements:
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i	
5.	Treatment and Handling Protocol:
	To be sold as product
l	
6.	Treated Wastewater Discharge Subcategory:
٠. آ	A LONG THE THE THE THE THE THE THE THE THE THE
	Subcategory A Subcategory B Subcategory C



PROCESS FACILITY INFORMATION (CES USE ONLY!!)

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum M7121

Product Description: Petroleum Product Additive

Product Code: 83757101, 83757101

Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency800-726-2015Transportation Emergency Phone800-424-9300Product Technical Information800-654-1233Supplier General Contact800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

ENVIRONMENTAL HAZARDS

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 0

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 1

h: 1

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek



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immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon dioxide, Smoke, Fume

FLAMMABILITY PROPERTIES

Flash Point [Method]: >160C (320F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: 360°C (680°F) [Base oil]

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it



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up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Material will sink. Remove material, as much as possible, using mechanical equipment.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Remove debris in path of spill prior to oiling and remove contaminated debris from shoreline and water surface and dispose of according to local regulations. Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: 50°C (122°F) - 80°C (176°F)

Transport Temperature: N/D **Transport Pressure:** N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 60°C (140°F)

Storage Pressure: N/D

Suitable Containers/Packing: Drums; Tank Trucks; Tank Cars Suitable Materials and Coatings: Stainless Steel; Carbon Steel

Unsuitable Materials and Coatings: Butyl Rubber; Rubber; PVC; Compatibility with plastics will vary

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.



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ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES



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Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Form: Viscous Color: Brown

Odor: Mild Petroleum/Solvent

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 20 C): 0.99 20°/20C

Density (at 20 °C): 1051 kg/m³ (8.77 lbs/gal, 1.05 kg/dm³) Flash Point [Method]: >160C (320F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: 360°C (680°F) [Base oil]

Boiling Point / Range: N/A Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 1130 cSt (1130 mm2/sec) at 40 C | 95 cSt (95 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A Hygroscopic: No

Coefficient of Thermal Expansion: 0.00067 V/VDEGC [Typical]

Decomposition Temperature: N/D

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures. 80 °C (176 °F)

MATERIALS TO AVOID: Strong oxidizers, Strong Acids

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure Conclusion / Remarks



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Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Еуе	
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised



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incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: TSCA, EINECS, PICCS, DSL, IECSC, ENCS, KECI, AICS

EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
CARBONIC ACID, CALCIUM	471-34-1	4, 18



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SALT (1:1)			
SOLVENT DEWAXED HEAVY	64742-65-0	13, 17, 18	
PARAFFINIC DISTILLATE			

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 06: Notification Procedures - Header was modified.

Section 13: Empty Container Warning was modified.

Section 08: Hand Protection was modified.

Section 07: Handling and Storage - Handling was modified.

Section 07: Transport Temperature C(F) was modified.

Section 07: Storage Temperature C(F) was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 15: List Citations Table was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 06: Notification Procedures was modified. Section 09: Decomposition Temperature was added. Section 09: Decomposition Temp - Header was added.

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Internal Use Only

MHC: 0, 0, 0, 0, 2, 1

DGN: 6034315 (1008177) (NA Core)



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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum C9235

Product Description: Petroleum Product Additive

Product Code: 81320100, 81320100

Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency **Transportation Emergency Phone Product Technical Information**

800-726-2015 800-424-9300

800-654-1233

Supplier General Contact

800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation.

NFPA Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-



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mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: None.

FLAMMABILITY PROPERTIES

Flash Point [Method]: >180°C (356°F)

Flammable Limits (Approximate volume % in air): LEL: 1 %V UEL: 6 %V

Autoignition Temperature: >345°C (653°F)

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.



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Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: 60°C (140°F) - 80°C (176°F)

Transport Temperature: 50°C (122°F) - 80°C (176°F)

Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** 80°C (176°F)

Storage Pressure: [Ambient]

Suitable Containers/Packing: Drums; Tank Cars; Tank Trucks; Bulk Containers Suitable Materials and Coatings: Carbon Steel; Stainless Steel; Zinc; Epoxies

Unsuitable Materials and Coatings: Butadiene Rubber; Butyl Rubber; Polyethylene; Rubber; Styrene

Rubber

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS



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The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use. If product is hot, thermally protective gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact. Thermally protective and chemical resistant apron and long sleeves are recommended when volume of material is significant.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.



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GENERAL INFORMATION

Physical State: Liquid

Form: Viscous Color: N/D

Odor: Ammonia-like Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 °C): 0.92 15.6°/15.6°C

Density (at 15 °C): 920 kg/m³ (7.68 lbs/gal, 0.92 kg/dm³)

Flash Point [Method]: >180°C (356°F)

Flammable Limits (Approximate volume % in air): LEL: 1 %V UEL: 6 %V

Autoignition Temperature: >345°C (653°F) **Boiling Point / Range:** 315°C (599°F)

Vapor Density (Air = 1): N/D Vapor Pressure: [N/D at 20 °C]

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Negligible

Viscosity:

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/D Melting Point: N/D Pour Point: -4°C (25°F)

Hvaroscopic: No

Coefficient of Thermal Expansion: 0.00067 %

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures. , Moisture.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks		
Inhalation			
Toxicity: LC50 > 5 mg/l	Minimally Toxic.		
Irritation: No end point data.	Negligible hazard at ambient/normal handling temperatures.		



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<u> </u>	
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/g	Minimally Toxic.
Irritation: No end point data.	Negligible irritation to skin at ambient temperatures.
Eye	
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be inherently biodegradable

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.



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REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ENCS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below: None.

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL 2 = ACGIH A1 6 = TSCA 5a2 7 = TSCA 5e 11 = CA P65 REPRO 12 = CA RTK 16 = MN RTK

17 = NJ RTK



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3 = ACGIH A2 8 = TSCA 6

4 = OSHAZ

9 = TSCA 12b

13 = IL RTK

18 = PA RTK

14 = LA RTK

19 = RI RTK

5 = TSCA 4

10 = CA P65 CARC

15 = MI 293

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 13: Regulatory Disposal Information was modified.

Section 09: pH was modified.

Section 03: Health Hazards was modified.

Section 03: Physical/Chemical Hazard was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 08: Hand Protection was modified.

Section 08: Skin and Body Protection was modified.

Section 01: Company Contact Methods Sorted by Priority was modified.

Section 15: National Chemical Inventory Listing was added.

Section 15: National Chemical Inventory Listing - Header was added.

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particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable,

this information must be reviewed with the supplier of such information.

Internal Use Only

MHC: 0, 0, 0, 0, 0, 0

DGN: 6000835 (1003793) (NA Core)

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Product Name: Infineum C9433 Revision Date: 19Jan2005

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum C9433

Product Description: Petroleum Product Additive

Product Code: 71671100 Intended Use: Friction modifier

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency **Transportation Emergency Phone**

800-726-2015

800-424-9300

Product Technical Information

800-654-1233

Supplier General Contact

800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

Fatty acids, reaction products with Triethanolamine

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be dangerous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Irritating to skin. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Eye | Skin |

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing



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assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Carbon dioxide, Nitrogen oxides, Carbon monoxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: 94°C (201°F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES



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Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment. See Section 3 for Significant Hazards.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Report spills as required to appropriate authorities.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas. Large Spills: Dike far ahead of liquid spill for later recovery and disposal.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with eyes. Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: 50°C (122°F)

Transport Temperature: 50°C (122°F)

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** 40°C (104°F)

Storage Pressure: N/D

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.



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PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No protection is ordinarily required under normal conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended.

Eye Protection: Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: Yellow
Odor: Characteristic
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.89



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Density (at 20 °C): 940 kg/m³ (7.84 lbs/gal, 0.94 kg/dm³)

Flash Point [Method]: 94°C (201°F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

Boiling Point / Range: 210°C (410°F)

Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: [N/D at 40 °C] | 10 cSt (10 mm²/sec) at 100°C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Coefficient of Thermal Expansion: 0.0065 V/VDEGC

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: N/D

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks	
Inhalation		
Toxicity: No end point data.	Minimally Toxic.	
Irritation: No end point data.	Negligible hazard at ambient/normal handling temperatures.	
Ingestion		
Toxicity: No end point data.	Minimally Toxic.	
Skin		
Toxicity: No end point data.	Minimally Toxic.	
Irritation: No end point data.	Irritating to the skin.	
Eye		
Irritation: No end point data.	Irritating and will injure eye tissue.	



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Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material -- Expected to be readily biodegradable.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.



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SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, DSL, EINECS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below: None.

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes: Not Applicable

PRECAUTIONARY LABEL TEXT:

Contains: Fatty acids, reaction products with Triethanolamine



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WARNING!

HEALTH HAZARDS

Irritating to eyes. Irritating to skin.

Target Organs: Eye | Skin |

PRECAUTIONS

Avoid contact with eyes. Avoid contact with skin.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Oral: Seek immediate medical attention. Do not induce vomiting.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing

before reuse.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Report spills as required to appropriate authorities.

Use

Not intended or suitable for use in or around a household or dwelling.

The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no representation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use; there is no warranty against intellectual property infringement; and Infineum shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.

Internal Use Only

MHC: 0, 0, 0, 2, 4, 0

DGN: 6025188 (1008358) (NA Core)

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum D2371

Product Description: Petroleum Product Additive

Product Code: 72410100 **Intended Use:** Lube oil additive

COMPANY IDENTIFICATION

Supplier: INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency800-726-2015Transportation Emergency Phone800-424-9300Product Technical Information800-654-1233Supplier General Contact800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL HEALTH EFFECTS

Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

NFPA Hazard ID:

Health: 0

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 0

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use



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mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon dioxide, Smoke, Fume, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: 145C (293F) [Typical ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.



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Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: 70°C (158°F)

Transport Temperature: 50°C (122°F) - 60°C (140°F)

Transport Pressure: N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** 60°C (140°F)

Storage Pressure: N/D

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.



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PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly affect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13,

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Form: Clear Color: Brown Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION



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Relative Density: 0.899

Density: 899 kg/m³ (7.5 lbs/gal, 0.9 kg/dm³)

Flash Point [Method]: 145C (293F) [Typical ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 2707 cSt (2707 mm2/sec) at 40 C | 141 cSt (141 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A Hygroscopic: No

Coefficient of Thermal Expansion: 0.00069 V/VDEGC

Decomposition Temperature: N/D

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Low molecular weight amines

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks		
Inhalation			
Toxicity: No end point data.	Minimally Toxic.		
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.		
Ingestion			
Toxicity: No end point data.	Minimally Toxic.		
Skin			
Toxicity: No end point data.	Minimally Toxic.		
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.		



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Eye	
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY Not determined.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE



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SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ENCS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
SOLVENT DEWAXED HEAVY	64742-65-0	13, 18
PARAFFINIC DISTILLATE	<u> </u>	

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive



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SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 13: Empty Container Warning was modified.

Section 08: Hand Protection was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 06: Notification Procedures was modified.

Section 09: Decomposition Temperature was added.

Section 09: Decomposition Temp - Header was added.

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DGN: 7078879 (1012258) (NA Core)

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum T4558

Product Description: Petroleum Product Additive

Product Code: 33613100 Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency800-726-2015Transportation Emergency Phone800-424-9300Product Technical Information800-654-1233Supplier General Contact800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

ALKYL THIOPHOSPHITES DIHEXYL PHTHALATE

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Contact with hot material can cause thermal burns which may result in permanent damage or blindness. Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Irritating to skin. May cause sensitization by skin contact. Danger of adverse health effects by prolonged exposure. May cause harm to the unborn child. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Reproductive system | Skin | Eye |

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2*

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.



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SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. Wash contact areas with soap and water. Remove contaminated clothing. Wash carefully behind ears, under nails and in skin folds. Get medical assistance. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Carbon monoxide, Smoke, Fume, Nitrogen oxides, Carbon dioxide, Phosphorus oxides, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: 156C (313F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A



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SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See Section 3 for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: <= 66°C (150°F)

Transport Temperature: <= 66°C (150°F)

Transport Pressure: N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 60°C (140°F)

Storage Pressure: N/D



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SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / Sta	ndard	Note	Source
ALKYL THIOPHOSPHITES	Inhalable fraction.	TWA	10 mg/m3	N/A	Supplier
ALKYL THIOPHOSPHITES	Respirable fraction.	TWA	3 mg/m3	N/A	Supplier
ALKYL THIOPHOSPHITES	Respirable fraction.	TWA (calculate d) mg/m3	3 mg/m3	N/A	ACGIH
ALKYL THIOPHOSPHITES	Vapor & aerosol, inhal. fract.	TWA (calculate d) mg/m3	10 mg/m3	N/A	ACGIH
DIHEXYL PHTHALATE	Aerosol.	TWA	5 mg/m3	N/A	Supplier

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove



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manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended. Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact with material may occur, safety glasses and face shield are recommended. Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: N/D Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density: N/D

Density (at 15 °C): 859 kg/m³ (7.17 lbs/gal, 0.86 kg/dm³)

Flash Point [Method]: 156C (313F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 57 cSt (57 mm2/sec) at 40 C | 13 cSt (13 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION



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Freezing Point: N/A Melting Point: N/A

Coefficient of Thermal Expansion: 0.00071 V/VDEGC

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High Temperatures.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks	
Inhalation		
Toxicity: No end point data.	Minimally Toxic.	
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.	
Ingestion		
Toxicity: No end point data.	Minimally Toxic.	
Skin		
Toxicity: No end point data.	Minimally Toxic.	
Irritation: No end point data.	Irritating to the skin.	
Eye		
Irritation: No end point data.	Irritating and will injure eye tissue.	

Additional information is available by request.

The following ingredients are cited on the lists below:

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC 2 = NTP SUS 3 = IARC 1

5 = IARC 2B

_

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION



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The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR. Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport



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SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, KECI, PICCS, TSCA Special Cases:

Inventory	Status
ELINCS	Restrictions Apply

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations	
ALKYL THIOPHOSPHITES	None	1	
DIHEXYL PHTHALATE	68515-50-4	13, 17, 18	
DIPHENYLAMINE	122-39-4	5, 9, 18	
HIGHLY REFINED MINERAL OIL	64741-97-5	17, 18	
HIGHLY REFINED MINERAL OIL	64742-65-0	13, 18	

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 15: List Citations Table was modified.

Section 16: NA Contains was modified.



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Section 08: Exposure Limits Table was modified.

Section 02: Component table was modified.

PRECAUTIONARY LABEL TEXT:

Contains: DIHEXYL PHTHALATE, ALKYL THIOPHOSPHITES

WARNING!

HEALTH HAZARDS

Irritating to eyes. Irritating to skin. May cause sensitization by skin contact. Danger of adverse health effects by

prolonged exposure. May cause harm to the unborn child. **Target Organs:** Reproductive system | Skin | Eye |

PHYSICAL HAZARDS Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

PRECAUTIONS

Avoid contact with skin. Avoid contact with eyes.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. Wash contact areas with soap and water. Remove contaminated clothing. Wash carefully behind ears, under nails and in skin folds. Get medical assistance. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Not intended or suitable for use in or around a household or dwelling.

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum T4545

Product Description: Petroleum Product Additive

Product Code: 71433100 **Intended Use:** Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency
Transportation Emergency Phone

800-726-2015 800-424-9300

800-654-1233 800-654-1233

Product Technical Information Supplier General Contact

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

ALKYL PHOSPHITES

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Contact with hot material can cause thermal burns which may result in permanent damage or blindness. Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Eye |

ENVIRONMENTAL HAZARDS

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.



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SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon monoxide, Smoke, Fume, Nitrogen oxides, Carbon dioxide, Phosphorus oxides, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: 156C (313F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which



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exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: 60°C (140°F) - 70°C (158°F)

Transport Temperature: N/D **Transport Pressure:** N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 60°C (140°F)

Storage Pressure: N/D

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION



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Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV. 10 mg/m³ - ACGIH STEL. 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective



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equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: N/D Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density: N/D

Density (at 15 °C): 910 kg/m³ (7.59 lbs/gal, 0.91 kg/dm³)

Flash Point [Method]: 156C (313F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 3532.33 cSt (3532.33 mm2/sec) at 40 C | 322 cSt (322 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Decomposition Temperature: N/A

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High Temperatures.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.



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SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks	
Inhalation		
Toxicity: LC50 > 5 mg/l	Minimally Toxic.	
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.	
Ingestion		
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.	
Skin		
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.	
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.	
Eye		
Irritation: No end point data.	Moderately irritating to the eyes.	

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable



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laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: ELINCS, IECSC, EINECS, ENCS, AICS, PICCS, KECI, TSCA, DSL

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.



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SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
CATALYTIC DEWAXED LIGHT	64742-71-8	17, 18
PARAFFINIC OIL (PETROLEUM)		
DIPHENYLAMINE	122-39-4	5, 18
HIGHLY REFINED MINERAL OIL	64742-65-0	13, 18

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFORMATION	

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 06: Protective Measures was modified.

Section 13: Empty Container Warning was modified.

Section 08: Hand Protection was modified.

Section 07: Handling and Storage - Handling was modified.

Section 07: Loading/Unloading Temperature C(F) was modified.

Section 07: Transport Temperature C(F) was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 15: List Citations Table was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 06: Notification Procedures was modified.

Section 16: Standard phrases for California Proposition 65 was deleted.

PRECAUTIONARY LABEL TEXT:

Contains: ALKYL PHOSPHITES

WARNING!

HEALTH HAZARDSIrritating to eyes.

Target Organs: Eye |

PHYSICAL HAZARDS Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

PRECAUTIONS



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Avoid contact with skin. Avoid contact with eyes.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants. **Use**

Not intended or suitable for use in or around a household or dwelling.

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DGN: 6028324 (1009259) (NA Core)

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum T4028

Product Description: Petroleum Product Additive

Product Code: 72070100 **Intended Use:** Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency
Transportation Emergency Phone
Product Technical Information

800-726-2015 800-424-9300 800-654-1233

Supplier General Contact

800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

ALKYL PHOSPHITES

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Eye |

ENVIRONMENTAL HAZARDS

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES



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INHALATION

At ambient/normal handling temperatures, minimal or no irritation due to inhalation of vapor/mist is expected.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon monoxide, Smoke, Fume, Nitrogen oxides, Carbon dioxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: 166C (331F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See Section 3 for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.



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SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Do not touch or walk through spilled material. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: 55°C (131°F) - 65°C (149°F)

Transport Temperature: 55°C (131°F) - 65°C (149°F)

Transport Pressure: N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 50°C (122°F)

Storage Pressure: N/D

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / Sta	ndard	Note	Source
Hydrogen sulfide	N/A	Ceiling	20 ppm	N/A	OSHA Z2
Hydrogen sulfide	N/A	Maximum concentrat ion	50 ppm	N/A	OSHA Z2
Hydrogen sulfide	N/A	STEL	15 ppm	N/A	ACGIH



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Hydrogen sulfide	N/A	TWA	10 ppm		N/A	ACGIH
Sulfur oxides	N/A	TWA	13 mg/m3	5 ppm	N/A	OSHA Z1
Sulfur oxides	N/A	STEL	5 ppm		N/A	ACGIH
Sulfur oxides	N/A	TWA	2 ppm		N/A	ACGIH

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after



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handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Form: Viscous Color: N/D Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 60 F): 0.914

Density (at 15 °C): 913 kg/m³ (7.62 lbs/gal, 0.91 kg/dm³) **Flash Point [Method]:** 166C (331F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A
Boiling Point / Range: N/A
Vapor Density (Air = 1): N/D
Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 2950 cSt (2950 mm2/sec) at 40 C | 260 cSt (260 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A Hygroscopic: No

Coefficient of Thermal Expansion: 0.00072 V/VDEGC

Decomposition Temperature: N/A

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Overheating.

MATERIALS TO AVOID: Strong oxidizers



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HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur oxides, Hydrogen sulfide

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data.	Moderately irritating to the eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

Base oil component — Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.



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PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be inherently biodegradable

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Alkyl

Phosphites)

Hazard Class & Division: 9

UN Number: 3082 Packing Group: III

Label(s): 9

Transport Document Name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

(Alkyl Phosphites), 9, PG III



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SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ELINCS, ENCS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations	
CATALYTIC DEWAXED LIGHT	64742-71-8	1, 17, 18	
PARAFFINIC OIL (PETROLEUM)	1		
DIPHENYLAMINE	122-39-4	5, 9, 18	
SOLVENT DEWAXED HEAVY	64742-65-0	13, 18	
PARAFFINIC DISTILLATE			

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

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N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 03: Environmental Hazard was modified. Section 04: First Aid Inhalation was modified.

Section 03: Physical/Chemical Hazard was modified.

Section 06: Accidental Release - Spill Management - Land was modified.

Section 15: List Citations Table was modified.



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Section 16: Land Spill was modified.

Section 12: Mobility - Header was added.

Section 12: Persistence and Degradability- Header was added.

Section 12: Biodegradation - Header was added.

Section 14: Proper Shipping Name was added.

Section 14: Proper Shipping Name - Header was added.

Section 14: Hazard Class & Division - Header was added.

Section 14: Hazard Class was added.

Section 14: UN Number - Header was added.

Section 14: UN Number was added.

Section 14: Packing Group - Header was added.

Section 14: Packing Group was added.

Section 14: Label(s) - Header was added.

Section 14: Label(s) was added.

Section 14: Transport Document Name - Header was added.

Section 14: Transport Document Name was added.

Section 14: IATA Technical Name - All was added.

Section 14: IATATechnical Name - Close parenthesis was added.

Section 14: IATA Technical Name - Open parenthesis was added.

Section 12: Ecological Information - Mobility was added.

Section 12: Ecological Information - Mobility was added.

Section 12: Ecological Information - Acute Aquatic Toxicity was added.

Section 12: Ecological Information - Biodegradation was added.

Section 12: Ecological Information - Acute Aquatic Toxicity was added.

Section 12: Ecological Information - Biodegradation was added.

Section 14: Air (IATA) - Default was deleted.

Section 16: Standard phrases for California Proposition 65 was deleted. Section 12: Ecological Information - Acute Aquatic Toxicity was deleted.

Section 12: Ecological Information - Acute Aquatic Toxicity was deleted.

PRECAUTIONARY LABEL TEXT:

Contains: ALKYL PHOSPHITES

WARNING!

HEALTH HAZARDS
Irritating to eyes.

Target Organs: Eye |

PHYSICAL HAZARDS Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

PRECAUTIONS

Avoid contact with skin. Avoid contact with eyes.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.



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FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal. Do not touch or walk through spilled material.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Use

Not intended or suitable for use in or around a household or dwelling.

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Product Name: Infineum T4271

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum T4271

Product Description: Petroleum Product Additive

Product Code: 34713100 **Intended Use:** Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency
Transportation Emergency Phone
Product Technical Information

800-726-2015 800-424-9300

Product Technical Information
Supplier General Contact

800-654-1233 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

ALKYL PHOSPHITES

DIHEXYL PHTHALATE (MIXED ISOMERS)

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Danger of adverse health effects by prolonged exposure. May cause harm to the unborn child. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Reproductive system | Eye |

ENVIRONMENTAL HAZARDS

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health:

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health:

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.



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SECTION 4

FIRST AID MEASURES

INHALATION

At ambient/normal handling temperatures, minimal or no irritation due to inhalation of vapor/mist is expected.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon monoxide, Smoke, Fume, Carbon dioxide, Sulfur oxides, Phosphorus oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: 294C (561F) [Typical ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.



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SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: <= 60°C (140°F)

Transport Temperature: <= 60°C (140°F)

Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers.

Storage Temperature: 35°C (95°F) - 45°C (113°F)

Storage Pressure: [Ambient]

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / Star	ndard	Note	Source
DIHEXYL PHTHALATE (MIXED	Aerosol.	TWA	5 mg/m3	N/A	Supplier
ISOMERS)					

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.



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NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES



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Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Form: Viscous Color: Brown

Odor: Mild Petroleum/Solvent

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density: N/D

Flash Point [Method]: 294C (561F) [Typical ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 573 cSt (573 mm2/sec) at 40 C [Typical] | 58 cSt (58 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A Hygroscopic: No

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors,



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	mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be inherently biodegradable

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.



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DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: IECSC, DSL, EINECS, ENCS, KECI, TSCA Special Cases:

Inventory	Status	
AICS	Restrictions Apply	
ELINCS	Restrictions Apply	
PICCS	Restrictions Apply	

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other



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reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations	
DIHEXYL PHTHALATE (MIXED ISOMERS)	68515-50-4	13, 17, 18	
DIPHENYLAMINE	122-39-4	5, 9, 18	
SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE	64742-65-0	13, 18	
TRACE METAL IMPURITIES	N/A	10, 11	

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	(THER INFORMAT	TION		

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

No revision information is available.

PRECAUTIONARY LABEL TEXT:

Contains: DIHEXYL PHTHALATE (MIXED ISOMERS), ALKYL PHOSPHITES

WARNING!

HEALTH HAZARDS

Irritating to eyes. Danger of adverse health effects by prolonged exposure. May cause harm to the unborn child.

Target Organs: Reproductive system | Eye |

PHYSICAL HAZARDS Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

PRECAUTIONS

Avoid contact with skin.

FIRST AID

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.



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FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

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Product Name: Infineum C9220

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum C9220

Product Description: Petroleum Product Additive

Product Code: 81605100
Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency800-726-2015Transportation Emergency Phone800-424-9300Product Technical Information800-654-1233Supplier General Contact800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

NFPA Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use



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mouth-to-mouth resuscitation. Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: None.

FLAMMABILITY PROPERTIES

Flash Point [Method]: >180C (356F)

Flammable Limits (Approximate volume % in air): LEL: N/D

Autoignition Temperature: N/D

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT



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Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range. For safety reasons free water must be avoided when product is handled above 95degC. Free water is always detrimental to product quality.

Loading/Unloading Temperature: <= 130°C (266°F)

Transport Temperature: <= 130°C (266°F)

Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Nitrogen blanketing of containers is recommended. Do not store in open or unlabelled containers.

Storage Temperature: 80°C (176°F)

Storage Pressure: [Ambient]

Suitable Containers/Packing: Drums; Tank Cars; Tank Trucks; Bulk Containers **Suitable Materials and Coatings:** Carbon Steel; Stainless Steel; Zinc; Epoxies

Unsuitable Materials and Coatings: Butadiene Rubber; Butyl Rubber; Polyethylene; Rubber; Styrene

Rubber

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION



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Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after



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handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Form: Viscous Color: N/D

Odor: Mild Petroleum/Solvent

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 C): 0.933 15.6°/15.6C **Density (at 15 °C):** 931 kg/m³ (7.77 lbs/gal, 0.93 kg/dm³)

Flash Point [Method]: >180C (356F)

Flammable Limits (Approximate volume % in air): LEL: N/D

Autoignition Temperature: N/D **Boiling Point / Range:** 260C (500F)

Vapor Density (Air = 1): N/D

Vapor Pressure:

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Negligible

Viscosity: 27000 cSt (27000 mm2/sec) at 40 C [Typical] | 260 cSt (260 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/D Melting Point: N/D Hygroscopic: No

Coefficient of Thermal Expansion: 0.0006 %

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures. , Moisture.

MATERIALS TO AVOID: Strong oxidizers



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HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data.	May cause mild, short-lasting discomfort to eyes.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

S	ìΕ	C	TI	0	N	13	
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DISPOSAL CONSIDERATIONS



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Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT)

Proper Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S. (POLYOLEFIN ANHYDRIDE)

Hazard Class & Division: 9

ID Number: 3257
Packing Group: III
ERG Number: 128

Label(s): 9

Transport Document Name: ELEVATED TEMPERATURE LIQUID, N.O.S., 9, UN3257, PG III

Footnote: This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less. The above classification applies if the product is offered for transport at a temperature equal or greater than 100 deg. C (212 deg. F). If the product is offered for transport at less than 100 deg. C (212 deg. F), the transport classification is Not Regulated.

LAND (TDG)

Proper Shipping Name: ELEVATED TEMPERATURE LIQUID. N.O.S. (POLYOLEFIN ANHYDRIDE)

Hazard Class & Division: 9

UN Number: 3257 Packing Group: III

Footnote: The above classification applies if the product is offered for transport at a temperature equal or greater than 100 deg. C (212 deg. F). If the product is offered for transport at less than 100 deg. C (212 deg. F), the transport classification is Not Regulated.



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SEA (IMDG)

Proper Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S. (POLYOLEFIN ANHYDRIDE)

Hazard Class & Division: 9
EMS Number: F-A,S-P
UN Number: 3257
Packing Group: III
Label(s): 9 (ET)

Transport Document Name: ELEVATED TEMPERATURE LIQUID, N.O.S., 9 (ET), UN3257, PG III,

Footnote: The above classification applies if the product is offered for transport at a temperature equal or greater than 100 deg. C (212 deg. F). If the product is offered for transport at less than 100 deg. C (212 deg. F), the transport classification is Not Regulated.

AIR (IATA)

Proper Shipping Name: FORBIDDEN

[Footnote: If the product is offered for transport at less than 100 deg. C (212 deg. F), the transport classification is Not Regulated. Product classified as UN 3257 is forbidden by air transport but the product may be transported by air if its temperature is less than 100 deg. C (212 deg. F).]

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: KECI, TSCA, DSL, AICS, ENCS, EINECS, IECSC, PICCS

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below: None.

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive



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SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 06: Notification Procedures - Header was modified.

Section 08: Hand Protection was modified.

Section 07: Handling and Storage - Handling was modified.

Section 14: Sea (IMDG) - Header was modified. Section 06: Notification Procedures was modified.

Section 15: National Chemical Inventory Listing was added.

Section 15: National Chemical Inventory Listing - Header was added.

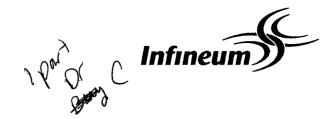
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Internal Use Only

MHC: 0, 0, 0, 0, 2, 1

DGN: 6001495 (1003795) (NA Core)

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum S951

Product Description: Petroleum Product Additive

Product Code: 71827100 **Intended Use:** Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency800-726-2015Transportation Emergency Phone800-424-9300Product Technical Information800-654-1233Supplier General Contact800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

ALKOXYLATED ALKYL PHENOL ZINC ALKYL DITHIOPHOSPHATE

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Contact with hot material can cause thermal burns which may result in permanent damage or blindness. Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Irritating to skin. Corrosive to eyes. May cause permanent damage. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs.

Target Organs: Skin | Eye |

ENVIRONMENTAL HAZARDS

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.



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SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. Wash contact areas with soap and water. Remove contaminated clothing. Wash carefully behind ears, under nails and in skin folds. Get medical assistance. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Carbon monoxide, Smoke, Fume, Sulfur oxides, Carbon dioxide, Nitrogen oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: >=110C (230F)



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Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Do not heat this product except as described below. This product is temperature sensitive; do not reheat above the maximum recommended temperature. Higher temperatures can result in exothermic decomposition leading to the release of highly toxic hydrogen sulphide and extremely odorous alkyl mercaptans. Alkyl mercaptans can be smelled at extremely low concentrations, and vapors may travel for many miles at detectable concentrations. These decomposition vapors are also flammable and may suddenly ignite when mixed with air in the presence of ignition sources such as sparks or flames. With proper facilities, no heating is required for pumping at ambient temperatures. If extreme cold weather conditions necessitate heating, then tempered water or oil, not exceeding 60 Deg. C, are



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recommended. Product temperature must never exceed 60 Deg. C (140 Deg. F). If heated, product temperature should be constantly monitored, and product should be agitated to avoid localised temperatures in the container above 60 Deg. C. Product should be stored between 10 and 40 Deg. C (40 to 100 Deg. F). Lower temperatures may result in some crystallisation of the product. Higher temperatures will lead to degradation of product quality and eventually to decomposition. Extreme caution must be used in tank gauging or similar operations as lethal concentrations of hydrogen sulphide could accumulate in the head-space of containers. This product contains Zinc dialkylthiophosphate (ZDDP). This product is temperature sensitive; do not reheat above the maximum recommended temperature. Higher temperatures can result in exothermic decomposition of the ZDDP leading to the release of highly toxic hydrogen sulphide and possibly extremely odorous alkyl mercaptans. Alkyl mercaptans can be smelled at extremely low concentrations, and vapors may travel for many miles at detectable concentrations. These decomposition vapors are also flammable and may suddenly ignite when mixed with air in the presence of ignition sources such as sparks or flames. Caution must be exercised when heating this product. Electrical or steam heating systems with a self limiting maximum temperature not exceeding 120 deg C (e.g. low pressure steam at 2 bar(g) (30 psig)) is recommended when product cannot be agitated to avoid localised high temperatures. When heated, product temperature should be constantly monitored. Product should be stored below the recommended maximum storage temperature to avoid degradation of product quality and eventually decomposition. Extreme caution must be used in tank gauging or similar operations as overheating could lead to accumulation of lethal concentrations of hydrogen sulfide in the head-space of containers. Warning: If this material is overheated, especially in the presence of water, hydrogen sulfide may be released; this can cause rapid respiratory collapse, coma and death without necessarily any warning odor being sensed. Prevent small spills and leakage to avoid slip hazard. Products may load from Infineum manufacturing site above the standard loading/unloading range.

Loading/Unloading Temperature: 60°C (140°F) - 65°C (149°F)

Transport Temperature: 60°C (140°F) - 65°C (149°F)

Transport Pressure: N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 60°C (140°F)

Storage Pressure: N/D

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form Limit / Standard			Note	Source	
Hydrogen sulfide	N/A	Ceiling	20 ppm	N/A	OSHA Z2	
Hydrogen sulfide	N/A	Maximum concentrat ion	50 ppm	N/A	OSHA Z2	
Hydrogen sulfide	N/A	STEL	15 ppm	N/A	ACGIH	
Hydrogen sulfide	N/A	TWA	10 ppm	N/A	ACGIH	



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Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly affect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended. Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: Chemical goggles and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.



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SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Form: Viscous Color: Brown Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density: 0.963

Density: 962 kg/m³ (8.03 lbs/gal, 0.96 kg/dm³) Flash Point [Method]: >=110C (230F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A
Boiling Point / Range: N/A
Vapor Density (Air = 1): N/D
Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 3374 cSt (3374 mm2/sec) at 40 C [Typical] | 148 cSt (148 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A Hygroscopic: No

Coefficient of Thermal Expansion: 0.00071 V/VDEGC

Decomposition Temperature: N/D

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Overheating.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Low molecular weight amines, Hydrogen sulfide

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION



Revision Date: 12Nov2007

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ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks		
Inhalation			
Toxicity: LC50 > 5 mg/l	Minimally Toxic.		
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.		
Ingestion			
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.		
Skin			
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.		
Irritation: No end point data.	Irritating to the skin.		
Еуе			
Irritation: No end point data.	Corrosive to eyes. May cause permanent damage.		

Warning: If this material is overheated, especially in the presence of water, hydrogen sulfide may be released; this can cause rapid respiratory collapse, coma and death without necessarily any warning odor being sensed.

CHRONIC/OTHER EFFECTS

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

A component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

SECTION 13

DISPOSAL CONSIDERATIONS



Revision Date: 12Nov2007

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Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: IECSC, TSCA, PICCS, AICS, KECI, DSL, ENCS Special Cases:

Inventory	Status
ELINCS	Restrictions Apply

EPCRA: This material contains no extremely hazardous substances.



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CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other

reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value
ZINC COMPOUNDS	N/A	10 - 19.9%

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
DIPHENYLAMINE	122-39-4	5, 18
SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE	64742-65-0	13, 18
TRACE METAL IMPURITIES	N/A	10, 11
ZINC COMPOUNDS	N/A	13, 17

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFORMATION	

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

No revision information is available.

PRECAUTIONARY LABEL TEXT:

Contains: ALKOXYLATED ALKYL PHENOL, ZINC ALKYL DITHIOPHOSPHATE

DANGER!

HEALTH HAZARDS

Corrosive to eyes and skin. May cause permanent damage. Irritating to skin. Corrosive to eyes. May cause

permanent damage.

Target Organs: Skin | Eye |

PHYSICAL HAZARDS Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

PRECAUTIONS



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Avoid contact with skin. Avoid contact with eyes. Do not heat this product except as described below. This product is temperature sensitive; do not reheat above the maximum recommended temperature. Higher temperatures can result in exothermic decomposition leading to the release of highly toxic hydrogen sulphide and extremely odorous alkyl mercaptans. Alkyl mercaptans can be smelled at extremely low concentrations, and vapors may travel for many miles at detectable concentrations. These decomposition vapors are also flammable and may suddenly ignite when mixed with air in the presence of ignition sources such as sparks or flames. With proper facilities, no heating is required for pumping at ambient temperatures. If extreme cold weather conditions necessitate heating, then tempered water or oil, not exceeding 60 Deg. C, are recommended. Product temperature must never exceed 60 Deg. C (140 Deg. F). If heated, product temperature should be constantly monitored, and product should be agitated to avoid localised temperatures in the container above 60 Deg. C. Product should be stored between 10 and 40 Deg. C (40 to 100 Deg. F). Lower temperatures may result in some crystallisation of the product. Higher temperatures will lead to degradation of product quality and eventually to decomposition. Extreme caution must be used in tank gauging or similar operations as lethal concentrations of hydrogen sulphide could accumulate in the head-space of containers. This product contains Zinc dialkylthiophosphate (ZDDP). This product is temperature sensitive; do not reheat above the maximum recommended temperature. Higher temperatures can result in exothermic decomposition of the ZDDP leading to the release of highly toxic hydrogen sulphide and possibly extremely odorous alkyl mercaptans. Alkyl mercaptans can be smelled at extremely low concentrations, and vapors may travel for many miles at detectable concentrations. These decomposition vapors are also flammable and may suddenly ignite when mixed with air in the presence of ignition sources such as sparks or flames. Caution must be exercised when heating this product. Electrical or steam heating systems with a self limiting maximum temperature not exceeding 120 deg C (e.g. low pressure steam at 2 bar(g) (30 psig)) is recommended when product cannot be agitated to avoid localised high temperatures. When heated, product temperature should be constantly monitored. Product should be stored below the recommended maximum storage temperature to avoid degradation of product quality and eventually decomposition. Extreme caution must be used in tank gauging or similar operations as overheating could lead to accumulation of lethal concentrations of hydrogen sulfide in the head-space of containers.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. Wash contact areas with soap and water. Remove contaminated clothing. Wash carefully behind ears, under nails and in skin folds. Get medical assistance. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.



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Use

Not intended or suitable for use in or around a household or dwelling.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no representation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use; there is no warranty against intellectual property infringement; and Infineum shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.

Internal Use Only

MHC: 0, 0, 0, 5, 4, 1

DGN: 6027983 (1010865) (NA Core)

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1 part DR



Product Name: Infineum D3423

Revision Date: 22Feb2006

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum D3423

Product Description: Petroleum Product Additive

Product Code: 71226100 Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier: INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency
Transportation Emergency Phone
Product Technical Information

800-424-9300 800-654-1233

800-726-2015

Supplier General Contact

800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

ALKYL PHENOL

ZINC ALKYL DITHIOPHOSPHATE

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Eye

ENVIRONMENTAL HAZARDS

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability:

Reactivity: 0

HMIS Hazard ID:

Health:

2

Flammability:

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.



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SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs. Seek immediate medical attention. Do not induce vomiting.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Smoke, Fume, Carbon monoxide, Sulfur oxides, Nitrogen oxides, Carbon dioxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: 188C (370F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES



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NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See Section 3 for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. This product contains Zinc dialkylthiophosphate (ZDDP). This product is temperature sensitive; do not reheat above the maximum recommended temperature. Higher temperatures can result in exothermic decomposition of the ZDDP leading to the release of highly toxic hydrogen sulphide and possibly extremely odorous alkyl mercaptans. Alkyl mercaptans can be smelled at extremely low concentrations, and vapors may travel for many miles at detectable concentrations. These decomposition vapors are also flammable and may suddenly ignite when mixed with air in the presence of ignition sources such as sparks or flames. Caution must be exercised when heating this product. Electrical or steam heating systems with a self limiting maximum temperature not exceeding 120 deg C (e.g. low pressure steam at 2 bar(g) (30 psig)) is recommended when product cannot be agitated to avoid localised high temperatures. When heated, product temperature should be constantly monitored. Product should be stored below the recommended maximum storage temperature to avoid degradation of product quality and eventually decomposition. Extreme caution must be used in tank gauging or similar operations as overheating could lead to accumulation of lethal concentrations of hydrogen sulfide in the head-space of containers. Warning: If this material is overheated, especially in the presence of water, hydrogen sulfide may be released; this can cause rapid respiratory collapse, coma and death without necessarily any warning odor being sensed. Prevent small spills and leakage to avoid slip hazard.



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Loading/Unloading Temperature: <= 70°C (158°F)

Transport Temperature: <= 70°C (158°F)

Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 60°C (140°F)

Storage Pressure: N/D

Suitable Containers/Packing: Tankers; Tank Trucks; Drums; Bulk Containers

Suitable Materials and Coatings: Carbon Steel; Stainless Steel; Inorganic Zinc Coatings; Epoxies

Unsuitable Containers/Packing: Natural rubber

Unsuitable Materials and Coatings: Natural Rubber; Butadiene Rubber; Polyethylene; Styrene Rubber;

Butyl Rubber

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Form Limit / Stan		Note	Source
Hydrogen sulfide	N/A	Ceiling	20 ppm	N/A	OSHA Z2
Hydrogen sulfide	N/A	Maximum concentrat ion	50 ppm	N/A	OSHA Z2
Hydrogen sulfide	N/A	STEL	15 ppm	N/A	ACGIH
Hydrogen sulfide	N/A	TWA	10 ppm	N/A	ACGIH

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications,



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handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact with material may occur, safety glasses and face shield are recommended. Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13,

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid Form: Clear, Viscous

Color: Brown

Odor: Mild Petroleum/Solvent

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION



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Relative Density (at 15.6 C): 0.955

Density (at 15 °C): 954 kg/m³ (7.96 lbs/gal, 0.95 kg/dm³) **Flash Point [Method]:** 188C (370F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A
Boiling Point / Range: N/A
Vapor Density (Air = 1): N/D
Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Negligible

Viscosity: 4200 cSt (4200 mm2/sec) at 40 C [Typical] | 193 cSt (193 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/D Melting Point: N/D Hygroscopic: No

Coefficient of Thermal Expansion: 0.0007 V/VDEGC

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures.

MATERIALS TO AVOID: Strong oxidizers, Water

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen sulfide

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure Conclusion / Remarks			
Inhalation			
Toxicity: LC50 > 5 mg/l	Minimally Toxic.		
Irritation: No end point data.			
Ingestion			
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.		
Skin			
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.		
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.		



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Еуе	
Irritation: No end point data.	Irritating and will injure eye tissue.

Warning: If this material is overheated, especially in the presence of water, hydrogen sulfide may be released; this can cause rapid respiratory collapse, coma and death without necessarily any warning odor being sensed.

CHRONIC/OTHER EFFECTS

Contains:

ALKYLPHENOL: Effects on liver, adrenals, and reproductive organs were seen in rats given high repeated oral doses. Decreased fertility index, decreased number of live pups, and other effects were seen in reproductive studies in rats dosed orally. Time to sexual maturation and weights of the uterus and ovaries were decreased in young female rats dosed orally.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be inherently biodegradable

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.



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REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ENCS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value	
ZINC COMPOUNDS	N/A	5 - 9.9%	



Revision Date: 22Feb2006

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The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations	
DIPHENYLAMINE	122-39-4	5, 9, 18	
SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE	64742-65-0	13, 18	
TRACE METAL IMPURITIES	N/A	10, 11	,
ZINC COMPOUNDS	N/A	13, 17	

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTI	IER INFORMATION	

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 06: Protective Measures was modified.

Section 09: Physical State was modified.

Section 09: Density kg/m3(lbs/gal) was modified.

Section 07: Handling and Storage - Handling was modified.

Section 03: Health Hazards was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 09: Relative Density - Header was modified.

Section 09: Flash Point C(F) was modified.

Section 09: Viscosity was modified.

Section 09: Viscosity was modified.

Section 08: Hand Protection was modified.

Section 08: Skin and Body Protection was modified.

Section 15: SARA (313) TOXIC RELEASE INVENTORY - Table was modified.

Section 06: Accidental Release Measures - Environmental Precautions was modified.

Section 16: Precautions was modified.

Section 16: Physical Hazards additional was modified.

Section 16: NA Contains was modified.

Section 02: Component table was modified.

Section 11: Other Health Effects Header was added.

Section 11: Chronic Tox - Component - U.S. Infineum was added.

Section 11: Chronic Tox - Component - U.S. Infineum - Header was added.

Section 11: Chronic Tox - Component - Header was deleted.

PRECAUTIONARY LABEL TEXT:

Contains: ZINC ALKYL DITHIOPHOSPHATE, ALKYL PHENOL

WARNING!



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HEALTH HAZARDS

Irritating to eyes.

Target Organs: Eye |

PHYSICAL HAZARDS Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

PRECAUTIONS

Avoid contact with skin. Avoid contact with eyes. This product contains Zinc dialkylthiophosphate (ZDDP). This product is temperature sensitive; do not reheat above the maximum recommended temperature. Higher temperatures can result in exothermic decomposition of the ZDDP leading to the release of highly toxic hydrogen sulphide and possibly extremely odorous alkyl mercaptans. Alkyl mercaptans can be smelled at extremely low concentrations, and vapors may travel for many miles at detectable concentrations. These decomposition vapors are also flammable and may suddenly ignite when mixed with air in the presence of ignition sources such as sparks or flames. Caution must be exercised when heating this product. Electrical or steam heating systems with a self limiting maximum temperature not exceeding 120 deg C (e.g. low pressure steam at 2 bar(g) (30 psig)) is recommended when product cannot be agitated to avoid localised high temperatures. When heated, product temperature should be constantly monitored. Product should be stored below the recommended maximum storage temperature to avoid degradation of product quality and eventually decomposition. Extreme caution must be used in tank gauging or similar operations as overheating could lead to accumulation of lethal concentrations of hydrogen sulfide in the head-space of containers.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants. **Use**

Not intended or suitable for use in or around a household or dwelling.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract.



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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum P5315

Product Description: Petroleum Product Additive

Product Code: 34739100 Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency Transportation Emergency Phone 800-726-2015 800-424-9300

Product Technical Information

800-654-1233

Supplier General Contact

800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

TETRAPROPENYLPHENOL

ZINC ALKYL DITHIOPHOSPHATE

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Contact with hot material can cause thermal burns which may result in permanent damage or blindness. Thermal burn hazard contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Danger of adverse health effects by prolonged exposure. May impair fertility. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs.

Target Organs: Reproductive system | Eye |

ENVIRONMENTAL HAZARDS

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2*

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary



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from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Sulfur oxides, Nitrogen oxides, Smoke, Fume, Carbon monoxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: >110C (230F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D

Autoignition Temperature: N/A



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SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See Section 3 for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Recover by pumping or with suitable absorbent. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. This product contains Zinc dialkylthiophosphate (ZDDP). This product is temperature sensitive; do not reheat above the maximum recommended temperature. Higher temperatures can result in exothermic decomposition of the ZDDP leading to the release of highly toxic hydrogen sulphide and possibly extremely odorous alkyl mercaptans. Alkyl mercaptans can be smelled at extremely low concentrations, and vapors may travel for many miles at detectable concentrations. These decomposition vapors are also flammable and may suddenly ignite when mixed with air in the presence of ignition sources such as sparks or flames. Caution must be exercised when heating this product. Electrical or steam heating systems with a self limiting maximum temperature not exceeding 120 deg C (e.g. low pressure steam at 2 bar(g) (30 psig)) is recommended when product cannot be agitated to avoid localised high temperatures. When heated, product temperature should be constantly monitored. Product should be stored below the recommended maximum storage temperature to avoid degradation of product quality and eventually decomposition. Extreme caution must be used in tank gauging or similar operations as overheating could lead to accumulation of lethal concentrations of hydrogen sulfide in the head-space of containers. Warning: If this material is overheated, especially in the presence of water, hydrogen sulfide may be released; this can cause rapid respiratory collapse, coma and death without necessarily any warning odor being sensed. Prevent small spills and leakage to avoid slip hazard.



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Loading/Unloading Temperature: <= 70°C (158°F)

Transport Temperature: <= 70°C (158°F)

Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 60°C (140°F)

Suitable Containers/Packing: Tankers; Tank Trucks; Drums; Bulk Containers

Suitable Materials and Coatings: Carbon Steel; Stainless Steel; Inorganic Zinc Coatings; Epoxies

Unsuitable Containers/Packing: Natural rubber

Unsuitable Materials and Coatings: Low Density Polyethylene(LDPE); Butadiene Rubber; Styrene Rubber;

Butyl Rubber; Natural Rubber

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / Sta	ndard	Note	Source
Hydrogen sulfide	N/A	Ceiling	20 ppm	N/A	OSHA Z2
Hydrogen sulfide	N/A	Maximum concentrat ion	50 ppm	N/A	OSHA Z2
Hydrogen sulfide	N/A	STEL	15 ppm	N/A	ACGIH
Hydrogen sulfide	N/A	TWA	10 ppm	N/A	ACGIH

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.



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Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: Chemical goggles and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: Brown

Odor: Mild Petroleum/Solvent

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 C): 0.972 15.6°/15.6C Density (at 15 °C): 971 kg/m³ (8.1 lbs/gal, 0.97 kg/dm³)

Flash Point [Method]: >110C (230F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: N/D



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Autoignition Temperature: N/A Boiling Point / Range: 260C (500F) Vapor Density (Air = 1): N/D

Vapor Pressure: N/D

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/D

Solubility in Water: Slight

Viscosity: 3800 cSt (3800 mm2/sec) at 40 C [Typical] | 175 cSt (175 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16,

OTHER INFORMATION

Freezing Point: N/D Melting Point: N/D

Coefficient of Thermal Expansion: 0.0007 V/VDEGC [Typical]

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Elevated temperatures.

MATERIALS TO AVOID: Strong oxidizers, Water, Strong Acids

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen sulfide

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks	
Inhalation		
Toxicity: LC50 > 5 mg/l	Minimally Toxic.	
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.	
Ingestion		
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.	
Skin		
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.	
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.	
Eye		
Irritation: No end point data.	Severely irritating, and may seriously damage eye tissue.	

Warning: If this material is overheated, especially in the presence of water, hydrogen sulfide may be released; this can cause rapid respiratory collapse, coma and death without necessarily any warning odor being sensed.



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CHRONIC/OTHER EFFECTS

Contains:

TETRAPROPENYLPHENOL: Effects on liver, adrenals, and reproductive organs were seen in rats given high repeated oral doses. Decreased fertility index, decreased number of live pups, and other effects were seen in reproductive studies in rats dosed orally. Time to sexual maturation and weights of the uterus and ovaries were decreased in young female rats dosed orally.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

A component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.



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Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ELINCS, ENCS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value
ZINC COMPOUNDS	N/A	= 12.3825 = 12.3825%

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations	
SOLVENT DEWAXED HEAVY	64742-65-0	13, 18	<u> </u>
PARAFFINIC DISTILLATE			
TRACE METAL IMPURITIES	N/A	10, 11	
ZINC COMPOUNDS	N/A_	13, 17	



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-- REGULATORY LISTS SEARCHED--1 = ACGIH ALL 6 = TSCA 5a2 11 = CA P65 REPRO 16 = MN RTK 2 = ACGIH A1 7 = TSCA 5e 12 = CA RTK 17 = NJ RTK 3 = ACGIH A2 8 = TSCA 6 13 = IL RTK 18 = PA RTK 4 = OSHA Z 9 = TSCA 12b 14 = LA RTK 19 = RI RTK 5 = TSCA 4 10 = CA P65 CARC 15 = MI 293

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

No revision information is available.

PRECAUTIONARY LABEL TEXT:

Contains: ZINC ALKYL DITHIOPHOSPHATE, TETRAPROPENYLPHENOL

WARNING!

HEALTH HAZARDS

Irritating to eyes. Danger of adverse health effects by prolonged exposure. May impair fertility.

Target Organs: Reproductive system | Eye |

PHYSICAL HAZARDS Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

PRECAUTIONS

Avoid contact with skin. Avoid contact with eyes. This product contains Zinc dialkylthiophosphate (ZDDP). This product is temperature sensitive; do not reheat above the maximum recommended temperature. Higher temperatures can result in exothermic decomposition of the ZDDP leading to the release of highly toxic hydrogen sulphide and possibly extremely odorous alkyl mercaptans. Alkyl mercaptans can be smelled at extremely low concentrations, and vapors may travel for many miles at detectable concentrations. These decomposition vapors are also flammable and may suddenly ignite when mixed with air in the presence of ignition sources such as sparks or flames. Caution must be exercised when heating this product. Electrical or steam heating systems with a self limiting maximum temperature not exceeding 120 deg C (e.g. low pressure steam at 2 bar(g) (30 psig)) is recommended when product cannot be agitated to avoid localised high temperatures. When heated, product temperature should be constantly monitored. Product should be stored below the recommended maximum storage temperature to avoid degradation of product quality and eventually decomposition. Extreme caution must be used in tank gauging or similar operations as overheating could lead to accumulation of lethal concentrations of hydrogen sulfide in the head-space of containers.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

FIRE FIGHTING MEDIA



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Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no representation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use; there is no warranty against intellectual property infringement; and Infineum shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.

Internal Use Only

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum V387

Product Description: Petroleum Product Additive

Product Code: 80130100, 80130100

Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

24 Hour Health Emergency
Transportation Emergency Phone

800-726-2015 800-424-9300

Product Technical Information
Supplier General Contact

800-654-1233 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3

HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL PHYSICAL / CHEMICAL EFFECTS

Contact with hot material can cause thermal burns which may result in permanent damage. Thermal burn hazard - contact with hot material may cause thermal burns.

POTENTIAL HEALTH EFFECTS

Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

NFPA Hazard ID:

Health: 1

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 1

l Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use



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mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Carbon monoxide, Smoke, Fume, Carbon dioxide

FLAMMABILITY PROPERTIES

Flash Point [Method]: 157C (315F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.



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Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: 40°C (104°F) - 70°C (158°F)

Transport Temperature: <= 70°C (158°F)

Transport Pressure: N/D

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** <= 60°C (140°F)

Storage Pressure: N/D

Suitable Containers/Packing: Tank Cars; Tank Trucks; Drums; Bulk Containers **Suitable Materials and Coatings:** Carbon Steel; Stainless Steel; Zinc; Epoxies

Unsuitable Containers/Packing: Natural and butyl rubbers; Butadiene and styrene rubbers

Unsuitable Materials and Coatings: Polyethylene; Rubber; Butadiene Rubber; Butyl Rubber; Styrene

Rubber

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.



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ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly affect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional



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data.

GENERAL INFORMATION

Physical State: Liquid

Form: Viscous Color: N/D

Odor: Mild Petroleum/Solvent

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 C): 0.919 15.6°/15.6C

Density (at 15 °C): 922 kg/m³ (7.69 lbs/gal, 0.92 kg/dm³)

Flash Point [Method]: 157C (315F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

Boiling Point / Range: > 260C (500F)

Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): [Negligible]

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 740 cSt (740 mm2/sec) at 40 C | 93 cSt (93 mm2/sec) at 100C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Pour Point: -33°C (-27°F)

Hygroscopic: No

Coefficient of Thermal Expansion: 0.00079 %

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: LC50 > 5 mg/l	Minimally Toxic.



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Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Skin	
Toxicity: LD50 > 2000 mg/kg	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data	May cause mild, short-lasting discomfort to eyes

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

A component -- Expected to be inherently biodegradable

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.



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DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: TSCA, KECI, IECSC, EINECS, DSL, ENCS, AICS, PICCS

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification



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requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations	
SOLVENT REFINED HEAVY PARAFFINIC DISTILLATE (PETROLEUM)	64741-88-4	13, 18	

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFORMATION	

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 13: Empty Container Warning was modified.

Section 08: Hand Protection was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Section 15: National Chemical Inventory Listing was modified.

Section 06: Notification Procedures was modified.

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MHC: 0, 0, 0, 0, 2, 1

DGN: 6000931 (1003820) (NA Core)

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum P5251

Product Description: Petroleum Product Additive

Product Code: 71862100 **Intended Use:** Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

 24 Hour Health Emergency
 800-726-2015

 Transportation Emergency Phone
 800-424-9300

 Product Technical Information
 800-654-1233

 Supplier General Contact
 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

MOLYBDENUM POLYSULPHIDE LONG CHAIN ALKYL DITHIOCARBAMIDE COMPLEX

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be dangerous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL HEALTH EFFECTS

Irritating to eyes. May cause sensitization by skin contact. Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation. May be irritating to the eyes, nose, throat, and lungs.

Target Organs: Eye | Skin |

ENVIRONMENTAL HAZARDS

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4

FIRST AID MEASURES



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INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide, Nitrogen oxides, Smoke, Fume, Metal Oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: 178°C (352°F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National



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Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 3 for Significant Hazards. See Section 5 for fire fighting information. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Confine the spill immediately with booms. Stop leak if you can do it without risk. Warn other shipping. Report spills as required to appropriate authorities. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas. Large Spills: Dike far ahead of liquid spill for later recovery and disposal.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** < 38°C (100°F)

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards

Source	Form	Limit / St	andard	Note	Source
MOLYBDENUM POLYSULPHIDE LONG CHAIN ALKYL	Inhalable fraction.	TWA	10 mg/m³	N/A	Supplier
DITHIOCARBAMIDE COMPLEX					
MOLYBDENUM POLYSULPHIDE	Respirable	TWA	3 mg/m³	N/A	Supplier
LONG CHAIN ALKYL	fraction.				
DITHIOCARBAMIDE COMPLEX					



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Hydrogen sulfide	N/A	Ceiling	20 ppm	N/A	OSHA Z2
Hydrogen sulfide	N/A	Maximum	50 ppm	N/A	OSHA Z2
		concentra	t		
		ion			}
Hydrogen sulfide	N/A	STEL	15 ppm	N/A	ACGIH
Hydrogen sulfide	N/A	TWA	10 ppm	N/A	ACGIH

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective



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equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: N/D Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 60 °F): 0.94

Density (at 15 °C): 939 kg/m³ (7.84 lbs/gal, 1.06 kg/dm³)

Flash Point [Method]: 178°C (352°F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: 84.5 cSt (84.5 mm²/sec) at 40 °C | 7.9 cSt (7.9 mm²/sec) at 100°C

Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Decomposition Temperature: 60°C (140°F)

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Overheating.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen sulfide

HAZARDOUS POLYMERIZATION: Will not occur.



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SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: No end point data.	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: No end point data.	Minimally Toxic.
Skin	
Toxicity: No end point data.	Minimally Toxic.
Irritation: No end point data.	Mildly irritating to skin with prolonged exposure.
Eye	
Irritation: No end point data.	Irritating and will injure eye tissue.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY Not determined.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.



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DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ELINCS, ENCS, KECI, PICCS, TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.



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The Following Ingredients are Cited on the Lists Below: None.

Chemical Name	CAS Number	List Citations
DIPHENYLAMINE	122-39-4	5, 9, 18

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFORMATION	
1 SECTION 10	OTHER INFORMATION	

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

No revision information is available.

PRECAUTIONARY LABEL TEXT:

Contains: MOLYBDENUM POLYSULPHIDE LONG CHAIN ALKYL DITHIOCARBAMIDE COMPLEX

WARNING!

HEALTH HAZARDS

Irritating to eyes. May cause sensitization by skin contact.

Target Organs: Eye | Skin |

PRECAUTIONS

Avoid contact with skin. Avoid contact with eyes.

FIRST AID

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Use

Not intended or suitable for use in or around a household or dwelling.



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MHC: 0, 0, 0, 2, 2, 1

DGN: 6028809 (1008812) (NA Core)

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MATERIAL SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Infineum P5198

Product Description: Petroleum Product Additive

Product Code: 71959100 Intended Use: Lube oil additive

COMPANY IDENTIFICATION

Supplier:

INFINEUM USA L.P.

P.O. Box CN 135

Linden, NJ. 07036 USA

 24 Hour Health Emergency
 800-726-2015

 Transportation Emergency Phone
 800-424-9300

 Product Technical Information
 800-654-1233

 Supplier General Contact
 800-654-1233

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

ETHOXYLATED TALLOW AMINE

MOLYBDENUM POLYSULPHIDE LONG CHAIN ALKYL DITHIOCARBAMIDE COMPLEX

SECTION 3

HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL HEALTH EFFECTS

Irritating to eyes. Irritating to skin. Low order of toxicity. May be irritating to the eyes, nose, throat, and lungs. Excessive exposure may result in eye, skin, or respiratory irritation.

Target Organs: Skin | Eye |

ENVIRONMENTAL HAZARDS

May cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 2

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.



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SECTION 4

FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Metal Oxides, Carbon monoxide, Smoke, Fume, Sulfur oxides, Carbon dioxide, Nitrogen oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: 110C (230F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable



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regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: 30°C (86°F) - 60°C (140°F)

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers. **Storage Temperature:** < 60°C (140°F)

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)



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Source	Form	Limit / Sta	ndard	Note	Source
MOLYBDENUM POLYSULPHIDE LONG CHAIN ALKYL DITHIOCARBAMIDE COMPLEX	Inhalable fraction.	TWA	10 mg/m3	N/A	Supplier
MOLYBDENUM POLYSULPHIDE LONG CHAIN ALKYL DITHIOCARBAMIDE COMPLEX	Respirable fraction.	TWA	3 mg/m3	N/A	Supplier
Hydrogen sulfide	N/A	Ceiling	20 ppm	N/A	OSHA Z2
Hydrogen sulfide	N/A	Maximum concentrat ion	50 ppm	N/A	OSHA Z2
Hydrogen sulfide	N/A	STEL	15 ppm	N/A	ACGIH
Hydrogen sulfide	N/A	TWA	10 ppm	N/A	ACGIH

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly affect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended.

Eye Protection: Chemical goggles are recommended.



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Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: Brown
Odor: N/D

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density: 0.953

Density (at 15 °C): 952 kg/m³ (7.94 lbs/gal, 0.95 kg/dm³)

Flash Point [Method]: 110C (230F)

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A Boiling Point / Range: N/A Vapor Density (Air = 1): N/D Vapor Pressure: [Negligible]

Evaporation Rate (n-butyl acetate = 1): N/A

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): N/A

Solubility in Water: Negligible

Viscosity: | 49 cSt (49 mm2/sec) at 100C Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/A Melting Point: N/A

Coefficient of Thermal Expansion: 0.00073 V/VDEGC

SECTION 10

STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. Overheating.



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MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Low molecular weight amines, Hydrogen sulfide

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: No end point data.	Minimally Toxic.
Irritation: No end point data.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity: No end point data.	Minimally Toxic.
Skin	
Toxicity: No end point data.	Minimally Toxic.
Irritation: No end point data.	Irritating to the skin.
Eye	
Irritation: No end point data.	Irritating and will injure eye tissue.

CHRONIC/OTHER EFFECTS

Additional information is available by request.

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- May cause long-term adverse effects in the aquatic environment.



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SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: IECSC, DSL, ENCS, KECI, PICCS, TSCA Special Cases:

Inventory	Status
AICS	Restrictions Apply
ELINCS	Restrictions Apply



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EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations	
DIPHENYLAMINE	122-39-4	5, 18	
SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE	64742-65-0	13, 18	

-- REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFORMATION	W

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 06: Protective Measures was modified.

Section 13: Empty Container Warning was modified.

Section 08: Hand Protection was modified.

Section 06: Accidental Release - Spill Management - Water was modified.

Hazard Identification: Health Hazards was modified.

Section 15: List Citations Table was modified.

Hazard Identification: Emergency Overview Target Organs was modified.

Section 16: Signal Word was modified. Section 16: Health Hazards was modified.

Section 16: Target Organs was modified.

Section 06: Notification Procedures was modified.

PRECAUTIONARY LABEL TEXT:

DANGER!

HEALTH HAZARDS

Irritating to eyes. Irritating to skin.

Target Organs: Skin | Eye |

PRECAUTIONS



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FIRST AID

Avoid contact with skin. Avoid contact with eyes.

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

FIRE FIGHTING MEDIA

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Use

Not intended or suitable for use in or around a household or dwelling.

The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although Infineum has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no representation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use; there is no warranty against intellectual property infringement; and Infineum shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.

Internal Use Only

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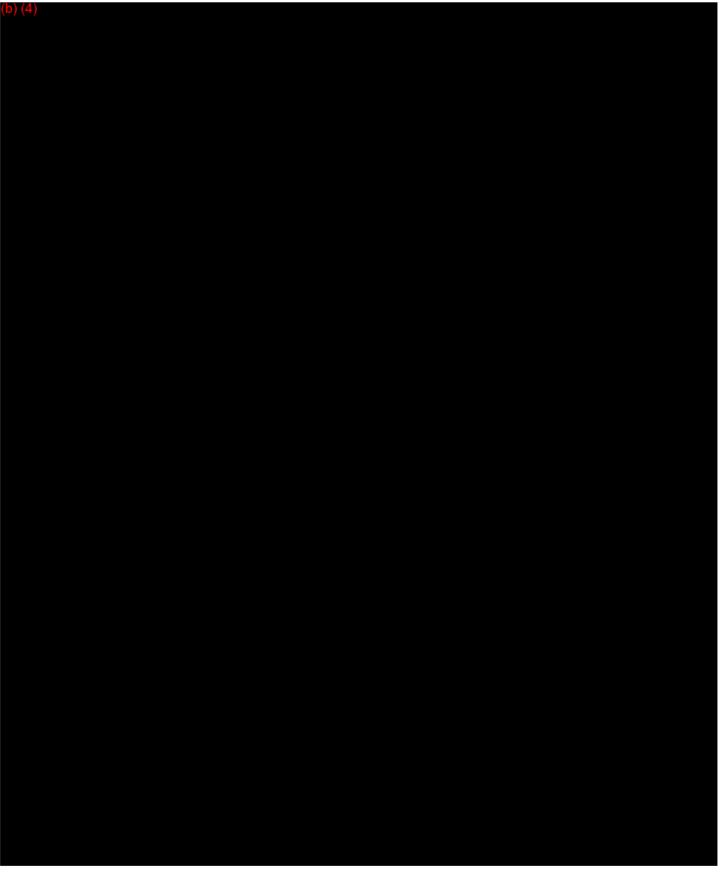
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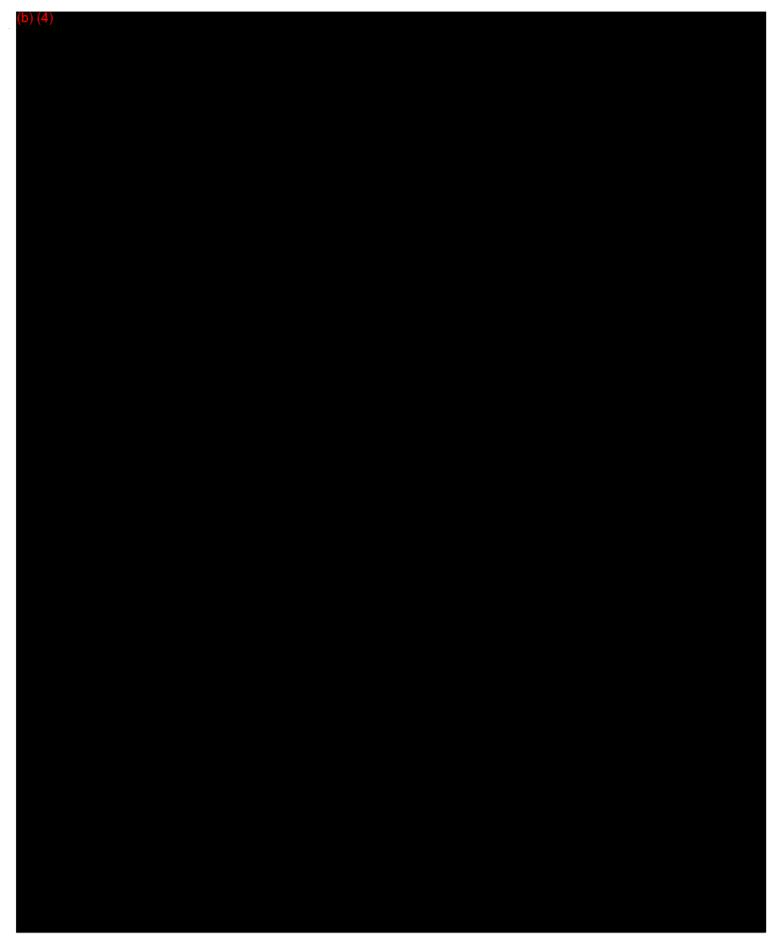
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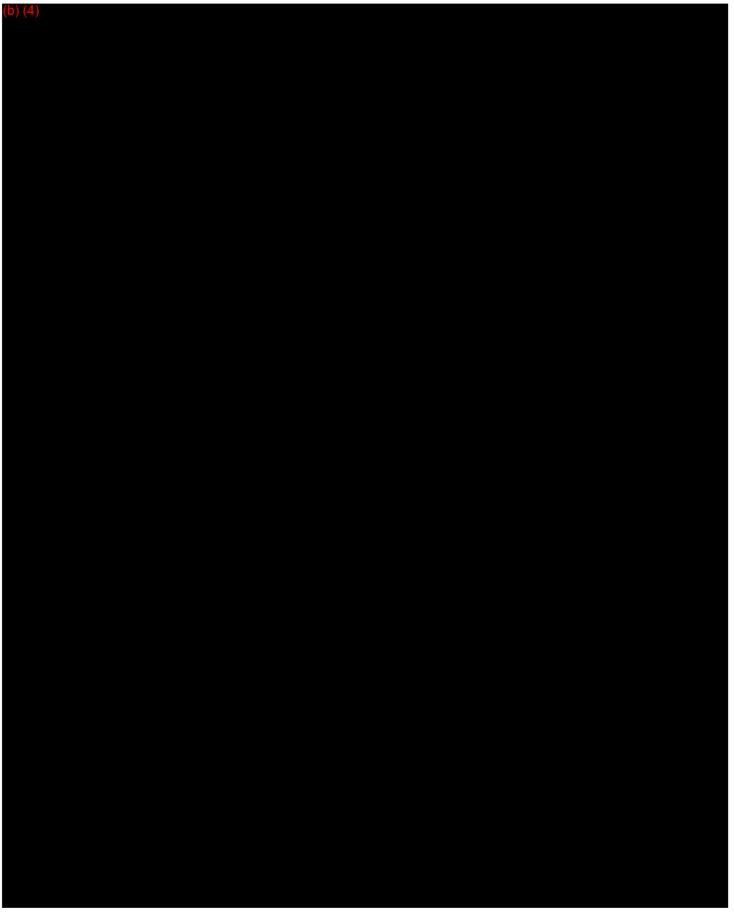
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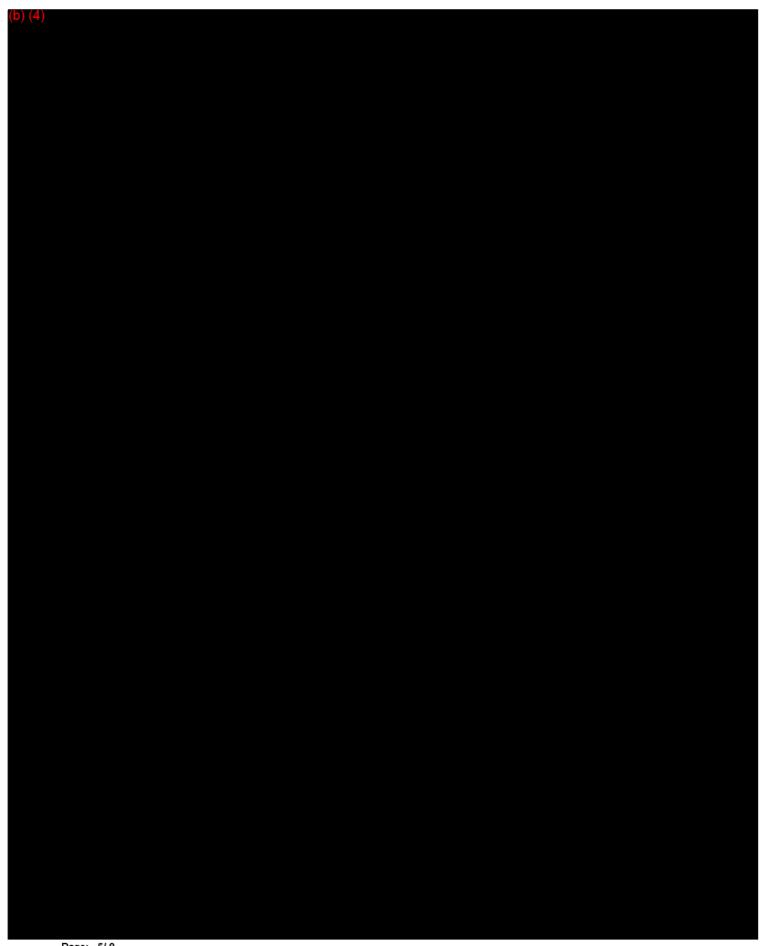
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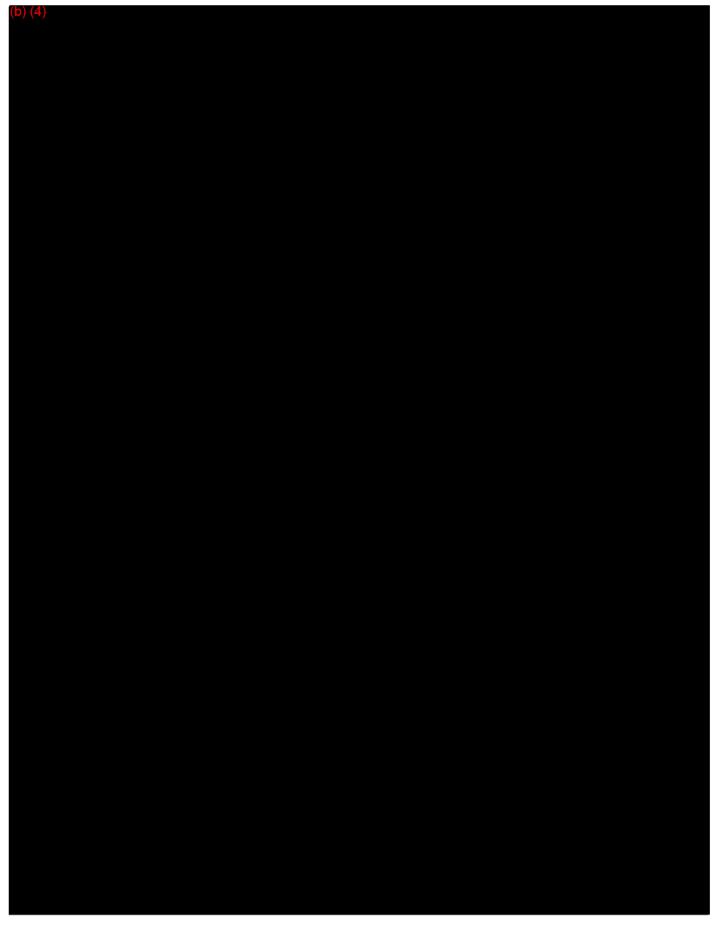
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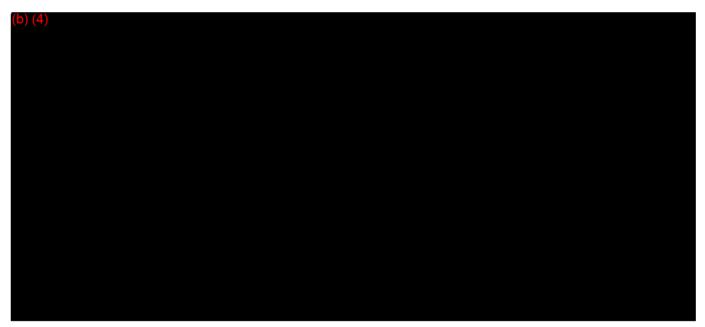




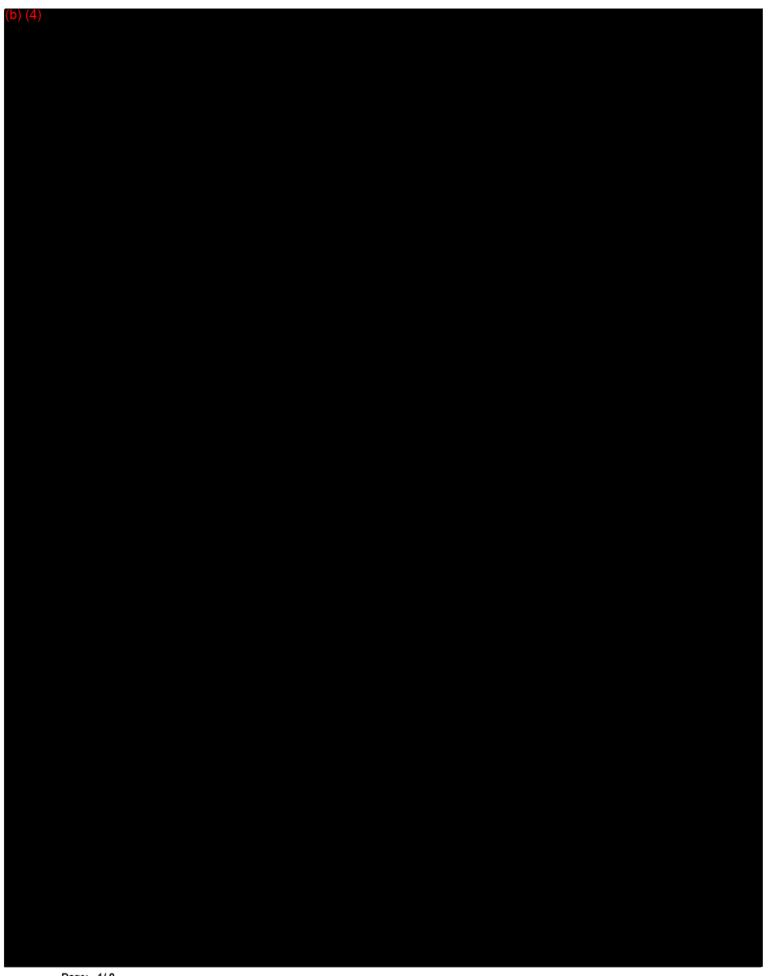


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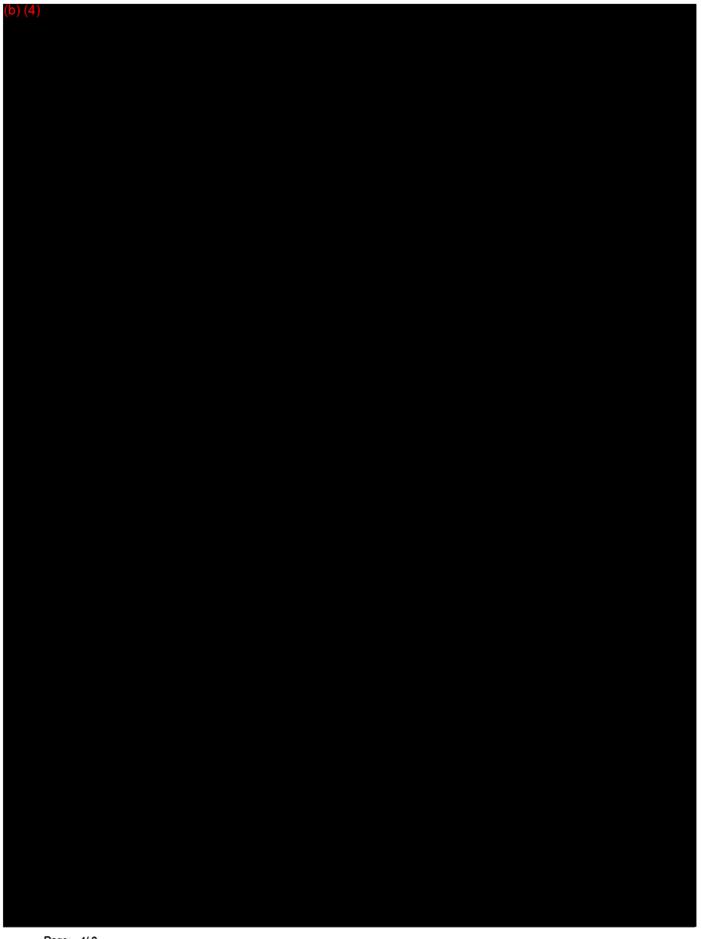


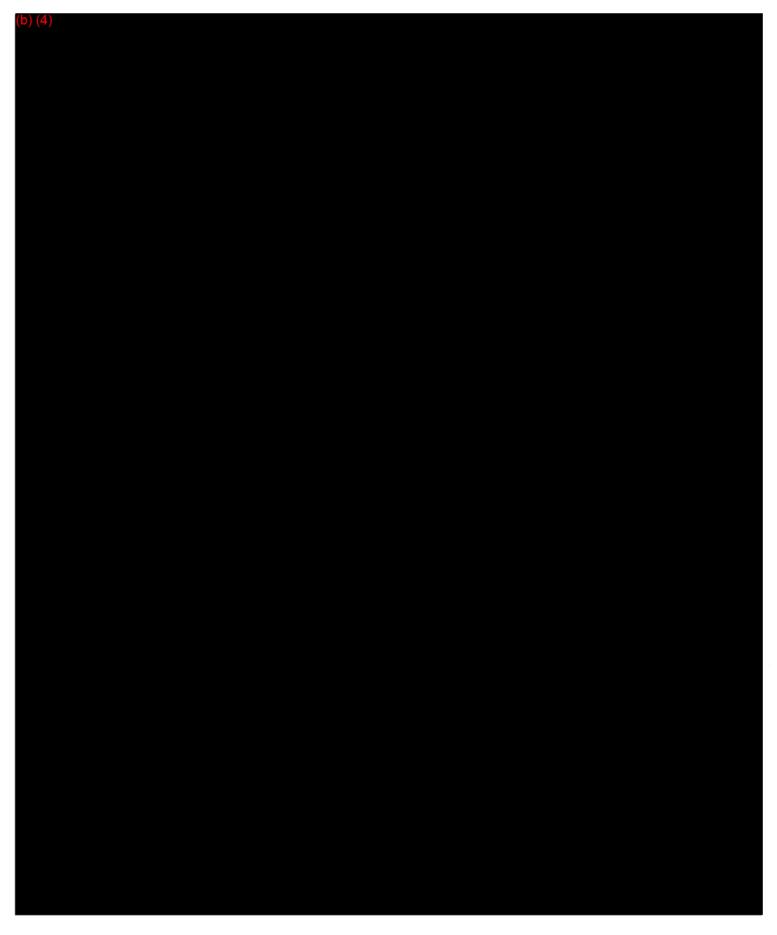


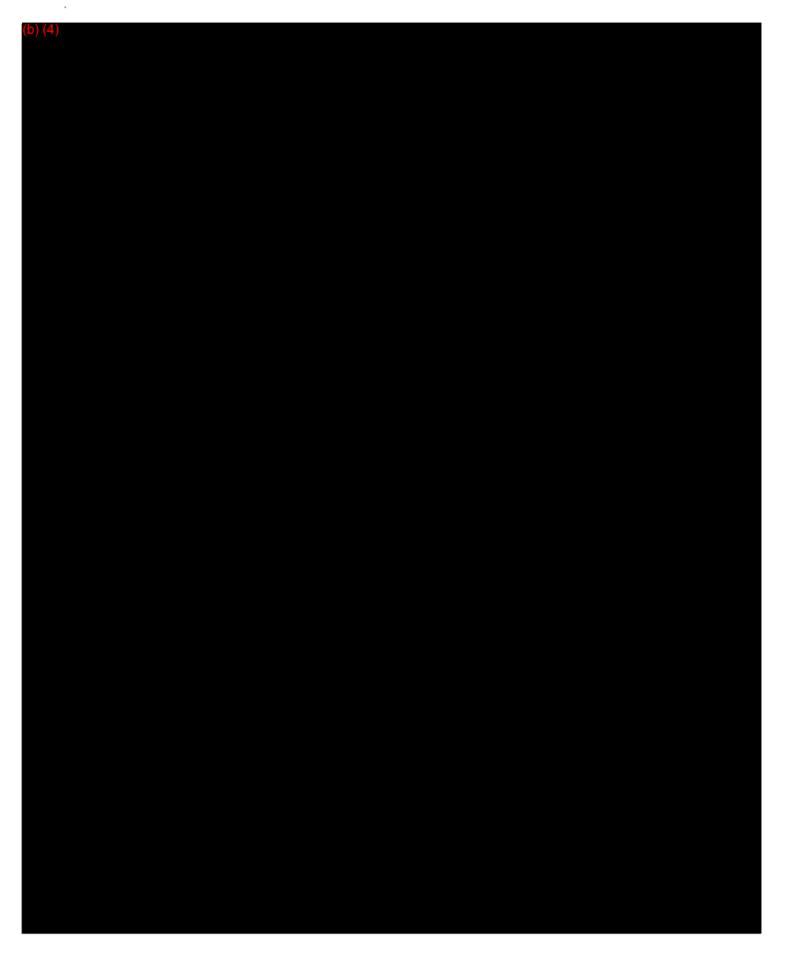
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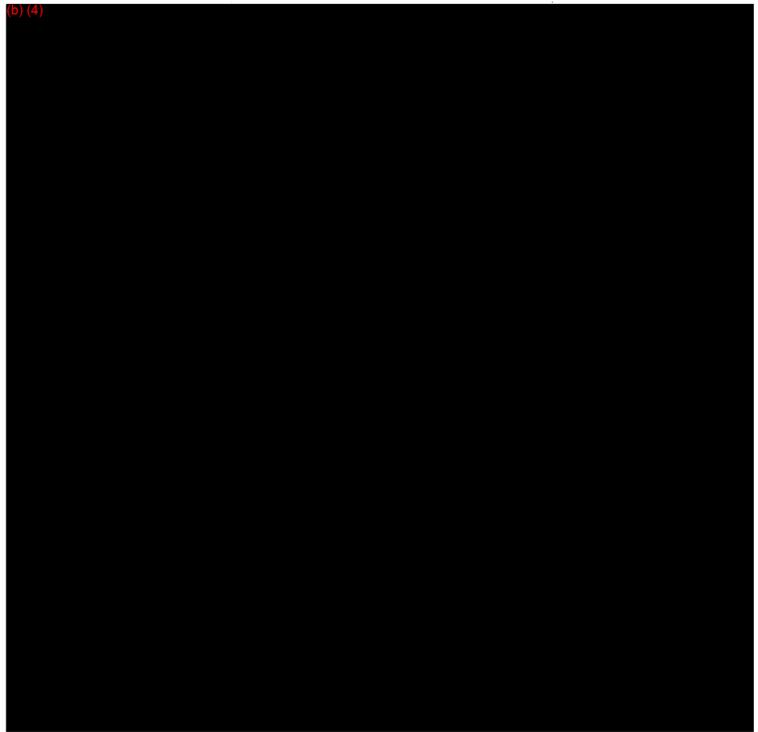








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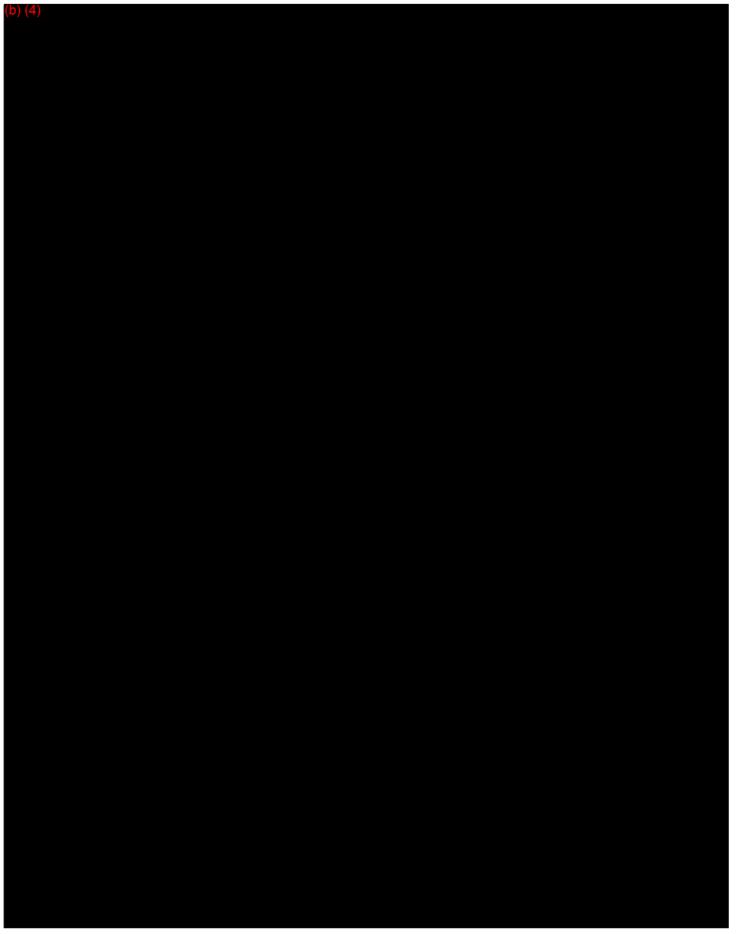
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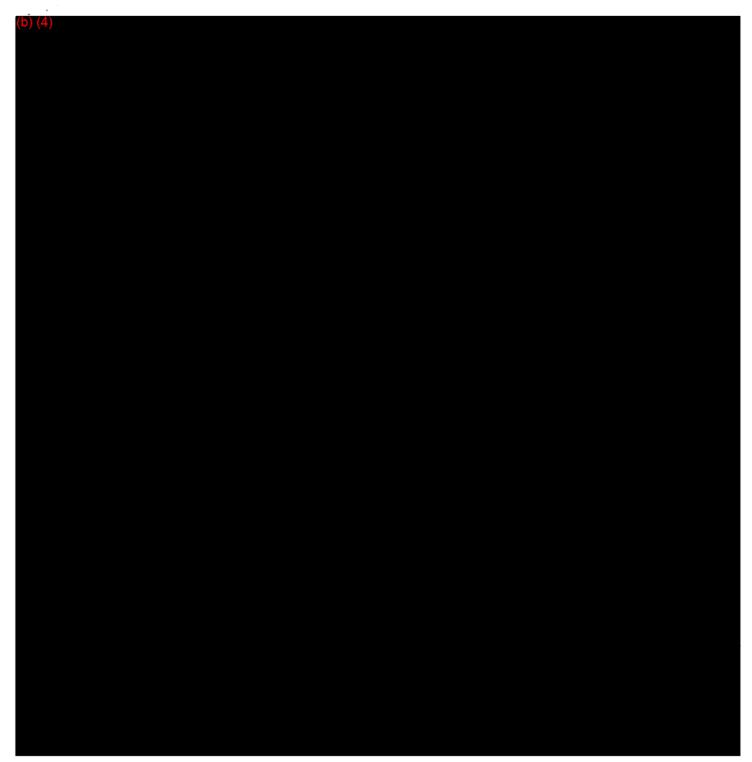








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LAST PAGE



Waste Pre-Acceptance/Approval Letter

Date 8/26/2008

Dear Tim Vorick

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2957

Expiration Date 8/26/2010

Generator: Green Hunter Biofuels **Address:** 13605 Industrial Blvd

Houston, TX 77015

Waste Information

Name of Waste: oily water TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

oily water from production of biodiesel

Color: brown

Odor: hydrocarbon

pH: 3-11

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

CES Environmental Services, Inc.

4904 Griggs Road, Houston, TX 77021

TCEQ Industrial Solid Waste Permit Number: 30948

Fax: (713) 676-1676 Phone: (713) 676-1460 http://www.cesenvironmental.com

U.S. EPA ID Number: TXD008950461 ISWR Number: 30900
SECTION 1: Congrator Information
SECTION 1: Generator Information Company: GREEN HUNTER BIOFULLS
Address: 13605 Industrial Ad
City: Hauston State: Tr Zip: 17015
Contact: Bruce BAUGHMAN Title:
Phone Number: 713 -574-9509 Fax Number: 713 450 1591
24/hr Phone Number:
US EPA ID No: 7x CES Q G
State ID No: CES Q 6 SIC Code:
SECTION 2: Billing Information - Same as Above Company: Address: 4808 FAirman PAREMAN BOR #274
City: PASMENA State: TX Zip: 77505
Contact: Steve Sans Title:
Phone Number: 713 53 0 4550 Fax Number:
SECTION 3: General Description of the Waste
Name of Waste: Detailed Description of Process Generating Waste:
Dily Water from production of biodiesel
· · · · · · · · · · · · · · · · · · ·
Physical State: Liquid Sludge Powder Solid Filter Cake Combination
color: brown odor: hydrocarbon
$lackbox{f V}$
Specific Gravity (water=1): Density: 2.34 lbs/gal
Does this material contain any total phenolic compounds?
Does this material contain any para substituted phenolic compounds?
Does this material contain any para substituted phenolic compounds?
is the Waste subject to the benzene waste operation NESHAP? (40 CFR Part 61, Subpart FF)
Answer "Yes" if your waste contains benzene AND if the SIC code from your facility is one of the following:
2812 2813 2816 2819 2821 2822 2823 2824 2833 283
2835 2836 2841 2842 2843 2844 2851 2861 2865 286
2873 2874 2876 2879 2891 2892 2893 2896 2899 291
3312 4953 4959 9511
Layers: Single-phase Multi-phase
Container Type: Drum Tote Truck Other (explain)
Frequency: Weekly Monthly Yearly One-Time Quantity: Soop Gallons

Is this a USEPA "Hazardous Waste" per 40CFR 261.3? If "Yes", then please complete, sign and date the Underlying Haza	Yes X No Irdous Constituents Form attached hereto	
If "Yes", Is it: D001 (Ignitable) D002 (Color Characteristic for Toxic Metals: D004 D001 D011 D010 D011 Characteristic for Toxic Organics: D012 thru D043 (please list at	5	□ D009
Is this an "F" or "K" Listed waste or mixed with one? If "Yes", then please list ALL applicable codes:	☐ Yes 💢 No	
Is this a commercial product or spill cleanup that would carry 40 CFR 261.33(e) or (f)? Yes Yes If "Yes", then please list ALL applicable codes:	a "U" or "P" waste code under	
Texas State Waste Code Number:	ycle Non-DOT Regulated RQ:	note 1
Proper US DOT Shipping Name: NOT \-ICCEA, I	Non-DOT Regulated RQ:	Walkid
	ive Sulfides Reactive Cyanides	Solids
7.45200 3-11 NF		21 %
Oil & Grease TOC 7/50 0 mg/l 420000 mg/l WIA	Zinc Copper mg/l NM mg/l	Nickel Mg/I
SECTION 4: Physical and Chemical Data		
COMPONENTS TABLE	CONCENTRATOIN	UNITS or %
The waste consists of the following materials	Ranges are acceptable	3/s
5.00	5-10	%
		/
<u> </u>		

	ling of this waste requires the use of special	al protective equipment, pl	ease explain.	
	: Attached Supporting Documents uments, notes, data and/or analysis attache ackage.	ed to this form as part of th	ne waste	
	E Incompatibilities ALL incompatibilities (if any):			
Laboratory based upon TCLP Metal TCLP Volati TCLP Semi- Reactivity: Corrosivity:	les: Volatiles:	stics, listed below, WAS N	OT PERFORMED	
Ignitability: <u>SECTION 9:</u> <u>Facilities)</u>	Waste Receipt Classification Under 40 CFR 43. Is this material a wastewater or wastewater if 'Yes', complete this section. PLEASE CHECK THE APPROPRIATE BOX. IF NO	sludge?	YES [NO
	ategory: Subpart A Spent electroplating baths and/or sludges Metal finishing rinse water and sludges Chromate wastes Air pollution control blow down water and sl Spent anodizing solutions Incineration wastewaters Waste liquid mercury Cyanide-containing wastes greater than 136 Waste acids and bases with or without metal Cleaning, rinsing, and surface preparation so Vibratory deburring wastewater Alkaline and acid solutions used to clean met	udges mg/l ls lutions from electroplating o		
	gory: Subpart B Used oils Oil-water emulsions or mixtures Lubricants Coolants Contaminated groundwater clean-up from pe Used petroleum products Oil spill clean-up Bilge water Rinse/wash waters from petroleum sources	etroleum sources		

Interceptor wastes
Off-specification fuels
Underground storage remediation waste
Tank clean-out from petroleum or oily sources
· Non-contact used glycols
Aqueous and oil mixtures from parts cleaning operations
☐ Wastewater from oil bearing paint washes
Organics Subcategory : Subpart C
☐ Landfill leachate
Contaminated groundwater clean-up from non-petroleum sources
Solvent-bearing wastes
Off-specification organic product
☐ Still bottoms
Byproduct waste glycol
☐ Wastewater from paint washes
☐ Wastewater from adhesives and/or epoxies formulation
Wastewater from organic chemical product operations
☐ Tank clean-out from organic, non-petroleum sources
(1)
If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)
If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in
excess of the values listed below, the waste should be classified in the metals subcategory.
Cadmium: 0.2 mg/L
Chromium: 8.9 mg/L
Copper: 4.9 mg/L
Nickel: 37.5 mg/L
(2)
(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper,
or nickel above any of the values listed above, the waste should be classified in the organics subcategory.
Metals Subcategory
✓ Metals subcategory ✓ Oils Subcategory
Organics Subcategory
Organics Subcategory
Organics Subcategory
Organics Subcategory SECTION 10 Additional Instructions
Organics Subcategory SECTION 10 Additional Instructions If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium,
Organics Subcategory SECTION 10 Additional Instructions If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.
Organics Subcategory SECTION 10 Additional Instructions If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This
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1.	Base Pricing (including freight):				
	\$10.10 /gal + +	rans +/5c			

2. Contamination Limits (maximum limit before surcharges apply):

Sd. <19000 TOC

3. Surcharge Pricing:

\$0.05/5000 TOC in excess of 10,000. Updo total disposal of \$0.30/get

4. Special Testing Requirements:

Sample cannot be an enalsion. There must be a bi-livered sample with a distinct oil layer and water Layer. Test pH and TOC.

5. Treatment and Handling Protocol:

of CES.

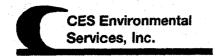
If Surcharg is less than 0.30 /get process

of CES.

If Surcharg for TOC is maxed out, process to System/

6. Treated Wastewater Discharge Subcategory:

		·	
☐ Subcategory A	∑ Subcategory B	Subcategory C	



Mana	gement for Pr	oduct Recover	ed/Recycled (if an	olicable):		
Mana	gement for Pr	oduct Recover	red/Recycled (if app	plicable);		



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 8/27/2008

Dear Danvell Childs

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2958

Expiration Date 8/27/2010

Generator: A-Affordable Vacuum Service

Address: 7039 burkett

Houston, TX 77021

Waste Information

Name of Waste: Recyclable oil filters

TCEQ Waste Code #: Recycle

Container Type:

Detailed Description of Process Generating Waste:

Spent oil filters from equipment

Color: dark

Odor: hydrocarbon

pH: 6-9

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,



CES Environmental Services, Inc.

4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

Fax: (713) 676-1676

http://www.cesenvironmental.com TCEQ Industrial Solid Waste Permit No: 30948

TCEQ Industrial Solid Waste Permit No: 30948
U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Gener	ator Information		
Company:	A-Affordable Vacuum Service		
Address:	7039 burkett PO Box 940984		·
City, State, Zip:	Houston TX 77021		
Contact:	Danyell Childs	_Title :	
Phone No :	(281) 802-7661	_Fax :	(713) 842-2011
24 / HR Phone:		_	
U.S EPA I.D No :	· · · · · · · · · · · · · · · · · · ·	_	
State I.D:		_SIC Code	
SECTION 2: Billing	Information		
Company :	A-Affordable Vacuum Service		
Address :	7039 burkett PO Box 940984		
City, State, Zip:	Houston TX 77021	<i>i</i>	
Contact:	Danyell Childs	_Title :	
Phone No:	(281) 802-7661	Fax:	(713) 842-2011
SECTION 3: Genera	al Description of the Waste		
Name of Waste:	Recyclable oil filters	43.000.00	The Control of the Co
	tion of the Process Generating Waste:		
	Hers from equipment		
	· · · · · · · · · · · · · · · · · · ·		
Physical State :	☐ Liquid ■ Sludge ■ Po	wder	
	Solid Filter Cake Co	mbination	
Color :	dark Odor:		hydrocarbon
Specific Gravity (NA lbs/gal
	contain any total phenolic compounds?	✓ No	
	contain any para substituted phenolic compounds?	Yes	☑ No
	t to the benzene waste operation NESHAP? (40 CFR Part 61,		
	816 2819 2821 2822 2823 2824 2833 2834 2869 2873 2874 2876 2879 2891 2892 2893	2835 28 2896 28	
Layers :	⊠ Single-Phas ☐ Multi-Phase	2000 20	
Container Type :	Drum Tote Truck	Other (exp	olain)
Container Size :	55	· .	
Number Of Units	: 10-15		
Is this a USEPA "I	lazardous Waste" per 40 CFR 261.3?	✓ No	
If "Yes", then ple	ease complete, sign and date the Underlying Hazardous Constitue	nts Form attac	ched hereto
If "Yes", is it:	D001 D002 D003		

Characteristic for Toxic Metals	s: 🗌 D004 📗 D0	005 🗌 D006 🗎	D007	
•	□ D008 □ D0	009 🗌 D010 📋	D011	
Characteristics for Toxic Organ	nics: D012 thru D043 (p	lease list all that apply)		
Is this an "F" or "K" Listed was	ste or mixed with one?	Yes V No		
If "Yes", then please list AL	LL applicable codes:			
Is this a commercial product of 261.33(e) or (f)?	or spill cleanup that wou	lld carry a "U" or "P" wa	ste code under 40 CFR	Yes V No
If "Yes", then please list Al	LL applicable codes:			
Texas State Waste Code No :	Recycle	CRA, Non-DO	r peg motenal	
Proper U.S. State Waste Code	e No :/V/n -/<	Rec	vclable oil 4. There	<u> </u>
Class: na	UN/NA: na	PG:	na ————	RQ: na
Flash Point	рН	Reactive Sulfides	Reactive Cyanides	Solids
>200	6-9	0mg/l	0 mg/l	
Oil and Grease	TOC	Zinc	Copper	Nickel
>1500 mg/l	NA mg/l	0 mg/l	0 mg/l	0 mg/
SECTION 4: Physical and Chemic				
	OMPONENTS TABLE	lawing materials	Concentra	
i ne materiai / prodi	luct consists of the fol	lowing materials	Ranges are ac	
	used oil		0-5	
	Orac oct	•	0.3	~
SECTION 5: Safety Related Data		garan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da ka Kanan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da kanan da ka	e et persone i julija ja ja ja ja ja ja ja ja ja ja ja ja j	1919 (1990) - 1909 (1999) (1990) - 1990 (1990) (1990) (1990) (1990) (1990) (1990) (1990) (1990) (1990) (1990)
If the handling of this waste relevel D PPE	equires the use of spe	cial protective equipm	ent, please explain.	
SECTION 6: Attached Supporting	Documents			*
List all documents, notes, dat		ched to this form as n	art of the waste annroval	nackane
none	a, androi analysis ata	to the form do po	art or the tracte approva.	paonago.
SECTION 7: Incompatibilities				
Please list all incompatibilities	e (if any):			
oxidizers	s (ii ariy).			
SECTION 8: Generator's Knowled			· ·	
Laboratory analysis of the haz following generators knowled		teristics, listed below,	WAS NOT PERFORMED I	pased upon the
TCLP Metals : X		•		
TCLP Volatilies : <u>x</u>				
TCLP Semi-Volatiles : <u>x</u>				

Ignita	ability: >200	
SECT	ION 9: Waste Receipt Classification Under 40 CFR 437	
	s material a wastewater or wastewater sludge?	
If 'YE	S', complete this section	
PLEA	SE CHECK THE APPROPRIATE BOX: IF NO APPROPRIATE CATEG	ORY, GO TO THE NEXT PAGE
	ls Subcategory: Subpart A	
	Spent electroplating baths and/or sludges	
	Metal finishing rinse water and sludges	
	Chromate wastes	
	Air pollution control blow down water and sludges	
	Spent anodizing solutions	
	Incineration wastewaters	
	Waste liquid mercury	
	Cyanide-containing wastes greater than 136 mg/l	
	Waste acids and bases with or without metals	
	Cleaning, rinsing, and surface preparation solutions from electroplating	or phospha
	Vibratory deburring wastewater	
Ц	Alkaline and acid solutions used to clean metal parts or equipment	
0:1- 6	Note that was a Continue of D	
OIIS S	Subcategory: Subpart B Used oils	
	Oil-water emulsions or mixtures	
	Lubricants	
	Coolants	and the second s
	Contaminated groundwater clean-up from petroleum sources	and the country of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the section of the second section of the section of the second section of the section of
	Used petroleum products	
	Oil spill clean-up	
	Bilge water	
	Rinse/wash waters from petroleum sources	
$\overline{\Box}$	Interceptor wastes	
	Off-specification fuels	
	Underground storage remediation wastes	
	Tank clean-out from petroleum or oily sources	
	Non-contact used glycols	
	Aqueous and oil mixtures from parts cleaning operations	
	Wastewater from oil bearing paint washes	
Organ	nics Subcategory Subpart C Landfill leachate	
	Contaminated groundwater clean-up from non-petroleum sources	
	Solvent-bering wastes	
	Off-specification organic product	
	Still bottoms	
	Byproduct waste glycol	
	Wastewater from paint washes	
	Wastewater from adhesive and/or epoxies formulation	

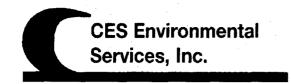
Corrosivity:

<u>x</u>

Wastewater from organic chemical product operations

(1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste she	nould be classified in the oils subcategory	
(2) If the waste contains oil and grease less than 100 mg/L, and has any of the poexcess of the values listed below, the waste should be classified in the metals		
Cadmium: 0.2 mg/L		
Chromium: 8.9 mg/L		
Copper: 4.9 mg/L Nickel: 37.5 mg/L		
· ·		
(3) If the waste contains oil and grease less than 100 mg/L, and does not have co or nickel above any of the values listed above, the waste should be classified		er,
☐ Metals Subcatego		
✓ Oils Subcatego		
☐ Organics Subcategory		
SECTION 10: Additional Instruction		
Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a comme concentrations. This will be prior to acceptance. The generator will be responsible SECTION 11: Generator's Certification		se
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35/du Hours, foc



Waste Pre-Acceptance/Approval Letter

Date 8/27/2008

Dear Troy Swearingen

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2959

Expiration Date 8/27/2010

Generator: MTI Environmental **Address:** 2150 Pansy Rd

Pasadena, TX 77503

Waste Information

Name of Waste: oily waste (motor oil) from spill

TCEQ Waste Code #: CESQ6091

Container Type:

Detailed Description of Process Generating Waste:

oily waste

Color: varies

Odor: hydrocarbon

pH: 3-11

Physical State:

Incompatibilities: oxidizers

Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,





4904 Griggs Road, Houston, TX 77021 Phone: (713) 676-1460 Fax: (713) 676-1676

http://www.cesenvironmental.com TCEQ Industrial Solid Waste Permit Number: 30948

U.S. FPA ID Number: TXD008950461 ISWR Number: 30900

	A STATE OF THE STA	0.3. EFA	(IO (Valina	er. TADOOS.	30-40.1	134411.140	moci	. 30500					
SECTION 1:	Generator !	nformation											
Company:	MTI Environ	nmental	*****										
Address:	2150 Pansy	St											
City:	Pasadena			Sta	te:	TX		Zip:				77503	
Contact:	Troy Swear					Title:		(Fam) 0 4	7.550				
Phone Num		(832)257-				Fax Numi	ber:	(713) 94	7-1529				
24/hr Phon		(832)257-	6128										
US EPA ID A		CECOC				SIC Code							
State ID No	;	CESQG				SIC Code:							
SECTION 2:	Billing Infor	mation -	✓ Sa	me as Abov	10								
Company:		111011011	<u> </u>	c us ribo.	<u></u>								
Address:													
City:				Sta	te:			Zip:					
Contact:						Title:							
Phone Num	ber:					Fax Num	ber:						
						•							
	General De												
	aste: escription of	^	٠, ,	. 12 10	,	,	1	1	1	_			
Name of W	aste:	<u> </u>	Ly V		-		TOL	016)	Tro.	<u>~ 50</u>	1cl		
Detailed De	escription of	Process Ger	neräting l	Naste:				7		•			
); [1												
Physical Sta		Liquid		Siu	dao		П	Powder					
i irysicai ste	,.c. _{[7}	Solid			er Cake			Combin					
		30110		FRE	er cane	;		COMM	ation				
Color:	1/60	ilo				Odor:		hud	Longe	- 1-			
		-3 6-		-		••••			VDC	-y 374 C			
Specific Gra	vity (water=	=1):		0.8-0	1.9			Density	: 10.6	-7.5 lbs/	gal		
				-		•		-	<u> </u>				
Does this n	nateriai cont	ain any tota	ıl phenoli	c compoun	ds?		Yes	ĺ	ZL No				
Does this n	naterial cont	ain any para	a substitu	ited pheno	lic com	?zbnuoc			Yes	M No			
												-/	
	e subject to									(Yes	X No	/
	s" if your wa					•		•		_			
2812			816	2819	2821		2822		323	2824	2833	2834	
2839		-	841	2842	2843		2844		351	2861	2865	2869	
287			2876	2879	2891		2892	. 28	393	2896	2899	2911	
3312	2 495	3 4	1959	9511									
Lavers:	VTÍ cie	ngle-phase		Multi-ph	200								
rayers.	300	igie-hi iase	П	Minti-bii	45 5								
Container l	rupe: NE	Drum	Tota	. Tra	ıck [Other (e:	kolair	n)					
		-	_					-,					
Frequency:	☐ Weekl	y 🔲 Mont	thly 🏚	Yearly 🗌	One-T	ime							
Quantity:		.3	<i>1</i> ~										

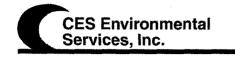
							D .		
	iEPA "Hazardo: hen please com			iying Hazandous C] Yes	~~.	No uhed hereto		
	stic for Taxic iV		☐ 0004 ☐ 0010	DD01 (Corrosive) D005 D011 D011 dease list all that	☐ 0006	D003 (Read	<u>.</u>	താമ	
	F" or "K" Lister then please lis			? () Yes	ø	No		
40 CFR 261 If "Yes",	1.33(e) or (f)? then please lis	t ALL applicab	□ ¥	ould carry a "U" o		ste code un	der		
16292 2192	e Waste Code i		Non	CESOLO.	ارم	المه جا	nefo	44(>-
Proper US		tent form -	-	PG: -		RQ:	~		
Proper US Class:		UN/NA:						•	
G)85:	sh Point	DR/IVA:		Reactive Sul	lides		Cyanides	Solids	
G)85:	in Point	. ·	1		fides mg/l	Reactive	Cyanides mg/l	208ids %	3
Class: Flas	Sh Point	. ·		Zinc Zinc		420	mg/l sper		\dashv \neg

MOIS TO THE WAY CHART COLO		
COMPONENTS TABLE	CONCENTRATORY	บพทร
The waste consists of the following materials	Ranges are acceptable	01%
n:L	100-80	72
< M14	0-10	%
Jaler	N - 10	3/4
		
		 +
		
		
·····		

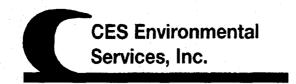
	_
	interceptor wastes
ļ	Off-specification fuels
Ş	Underground storage remediation waste
j	Non-contact used glycols
Į.	Aqueous and oil mixtures from parts cleaning operations
Į	_] Wastewater from oil bearing paint washes
Oceanies S	<u>ubcategore</u> : Subpart C
<u>93401343</u>	Landfill leachate
1	Contaminated groundwater clean-up from non-petroleum sources
1	
	Solvent-bearing wastes
	Off-specification organic product
	Still bottoms
Į.	Byproduct waste glycol
	Wastewater from paint washes
	Wastewater from adhesives and/or epoxies formulation
	Wassewater from organic chemical product operations
1	Tank clean-out from organic, non-petroleum sources
(1)	
(2	If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)	
	If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in
	excess of the values listed below, the waste should be classified in the metals subcategory.
	Cadmium: 0.2 mg/L
	Chromium: 8.9 mg/L
	Copper: 4.9 mg/L
	Nickel: 37.5 mg/L
	NICKO: 375 mg/L
(3)	
	If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper.
	or nickel above any of the values listed above, the waste should be classified in the organics subcategory,
	Metals Subcategory
	Oils Subcategory
	Organics Subcategory
SECTION 1	O Additional Instructions
	not determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium,
Copper, Nf	ckel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This
will be prid	or to acceptance. The generator will be responsible for the cost of the analysis.
SECTION .	11: Generator's Certification
	nation contained herein is based on 💢 generator knowledge and/or 🔲 analytical data.
	, -
	ertify that the above and attached description is complete and accurate to the best of
my know	edge and ability to determine that no deliberate or wilful omissions of compostion
propertie	s exist and that all known or suspected hazards have been disclosed. I certify that the
materials	tested are representative of all materials described by this document.
Authorize	ed Signature: B-13-08
Printed N	ama/Title: IFFE SURAL, NGC E. 12. MANDER Z
CES USE C	ONLY (DO NOT WRITE IN THIS SPACE)
	$O \sim M \sim 1$
Complian	ce Officer. Van Alast Van das
Date:	4 77 - CK Approved Relected
Approval	numoer; 7454



1. Base Pricing (including freight):
#55/dm #70/h + FSC
#70/h + FSC
2. Contamination Limit (maximum limit before surchages apply):
None
3. Surcharge Pricing:
1001
A Constitution Providence to
4. Special Testing Requirements: Flash, Pfl
5. Treatment and Handling Protocol:
class 1 storge box
6. Treated Wastewater Discharge Subcategory:
☐ Subcategory A ☐ Subcategory B ☐ Subcategory C



7. Tests for Product Recovered/R	Recycled (if applicable):	
8. Management for Product Reco	overed/Recycled (if applicable)	
8. Management for Product Reco	overed/Recycled (if applicable)	
8. Management for Product Reco	overed/Recycled (if applicable)	
8. Management for Product Reco	overed/Recycled (if applicable)	
8. Management for Product Reco	overed/Recycled (if applicable)	
8. Management for Product Reco	overed/Recycled (if applicable)	



Material / Product Approval Letter

Date 8/27/2008

Dear Jonny Salinas

Thank you for choosing CES Environmental Services, Inc. for your material / product recycling needs. The following material has been approved at our facility in Houston, TX. If the material received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2960

Expiration Date 8/27/2010

Producer: Kinder Morgan Address: 906 Clinton Dr

Galena Park, TX 77547

Material / Product Information

Name of Material / Product Sodium hydroxide

Container Type:

Detailed Description of Process Generating or Producing the Material / Product:

Tank cleaning

Color: watery

Odor: odoless

pH: 13

Physical State:

Incompatibilities: acids

Safety Related Data/Special Handling:

Corrosive liquid PPE

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,





CES Environmental Services, Inc.

4904 Griggs Road, Houston, TX 77021 Phone: (713) 676-1460 Fax: (713) 676-1676

http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit Number: 30948

ISWR Number: 30900

U.S. EPA ID Number: TXD008950461

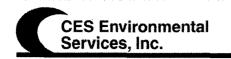
SECTION 1: Generator Information Company: Kinder Morgan - Galena Park Address: 906 Clinton Drive City: Galena Park TX State: Zip: Contact: Johnny Salinas Title: 713-724-4912 **Phone Number:** Fax Number: 24/hr Phone Number: US EPA ID No: TXD026481253 30573 SIC Code: State ID No: **SECTION 2: Billing Information -**✓ Same as Above Company: Address: City: State: Zip: Contact: Title: **Phone Number:** Fax Number: **SECTION 3: General Description of the Waste** Name of Waste: Sodium Hydroxide **Detailed Description of Process Generating Waste:** Tank Cleaning **Physical State:** Sludge Powder Liquid Filter Cake Combination Solid Color: Odor: watery 1.26 Density: 10,5 Specific Gravity (water=1): lbs/gal Does this material contain any total phenolic compounds? ✓ No Yes Does this material contain any para substituted phenolic compounds? \Box Yes ✓ No Is the Waste subject to the benzene waste operation NESHAP? (40 CFR Part 61, Subpart FF) ✓ No Yes Answer "Yes" if your waste contains benzene AND if the SIC code from your facility is one of the following: 2812 2813 2816 2823 2824 2833 2834 2821 2822 2835 2836 2841 2842 2843 2844 2851 2861 2865 2869 2873 2876 2879 2891 2874 2892 2893 2896 2899 2911 3312 4953 4959 9511 Layers: Single-phase Multi-phase □ Drum ☐ Tote ✓ Truck ☐ Other (explain) **Container Type:** Frequency: Weekly Monthly Yearly One-Time Quantity: 10,000 gallons

	EPA "Hazardo hen please com	•			Ye. ardous Constitue		No ached hereto		
	Is it: Stic for Toxic Notic for Toxic O		☐ D004 ☐ D010	D01 □	5 D000	☐ D003 (Rea 6 ☐ D007	<u> </u>	□ D009)
	F" or "K" Listed then please lis			 :?	Ye	s 🗸	No		
40 CFR 261	mmercial prod .33(e) or (f)? then please lis		Y	_	a "U" or "P" w	aste code ui	nder	<u> </u>	
	e Waste Code I			PRODUCT			-		
Proper US [Class:	JOI Sninning i		2 U.S. 1 Israel	1 1-1 - Cal					
Class.	•	Name: _UN/NA:	Sodium Hyd UN1824	droxide Sol PG:	ution	RQ:	100		
	•		UN1824	PG:				So	lids
Flash	8	UN/NA:	UN1824	PG:	11		100 Cyanides mg/l	So 2	lids %
Flash >	h Point	UN/NA:	UN1824 H 3	PG :	il tive Sulfides	Reactive	Cyanides	2	
Flash	8 h Point 140 200	UN/NA: pi	UN1824 H 3	PG :	tive Sulfides mg/l	Reactive	Cyanides mg/l	2	%
Flash >> Oil & N/A	h Point 140 200 Grease mg/I Physical and	UN/NA: pi 1 TC BRL Chemical Data	UN1824 H 3 OC mg/l	PG: React	tive Sulfides mg/l Zinc	Reactive 0 Co BRL	Cyanides mg/l oper mg/l	2 Nic	% kel mg/l
Flash SECTION 4:	h Point 140 200 Grease mg/I Physical and COM	UN/NA: pi 1 TC BRL Chemical Data	UN1824 H 3 OC mg/l BLE	PG: React 0 BRL	tive Sulfides mg/l Zinc	Reactive 0 Cop BRL	Cyanides mg/l oper mg/l	2 Nic	% kel mg/l
Flash SECTION 4:	h Point 140 200 Grease mg/I Physical and	UN/NA: pi 1 TC BRL Chemical Data IPONENTS TA sts of the follo	UN1824 H 3 OC mg/l BLE	PG: React 0 BRL	tive Sulfides mg/l Zinc	Reactive 0 Co BRL CONCENT	Cyanides mg/l oper mg/l mg/l	2 Nic	% kel mg/! UNITS or %
Flash SECTION 4:	h Point 140 200 Grease mg/l Physical and COM ne waste consist	UN/NA: pi 1 TC BRL Chemical Data IPONENTS TA sts of the follo Water	UN1824 H 3 OC mg/l BLE Dowing materia	PG: React 0 BRL	tive Sulfides mg/l Zinc	Reactive 0 Cop BRL CONCENT Ranges are 94-	Cyanides mg/l oper mg/l mg/l	2 Nic	// // // // // // // // // // // // //
Flash SECTION 4:	h Point 140 200 Grease mg/l Physical and COM ne waste consis	UN/NA: pi 1 TC BRL Chemical Data IPONENTS TA sts of the follo	UN1824 H 3 OC mg/l BLE Dwing material	PG: React 0 BRL	tive Sulfides mg/l Zinc	Reactive 0 Co BRL CONCENT	Cyanides mg/l	2 Nic	% kel mg/l UNITS or %

COMPONENTS TABLE	CONCENTRATOIN	UNIT
The waste consists of the following materials	Ranges are acceptable	or %
Water	94-98	%
Sodium Hydroxide	2-5	%
Solids - Rust, Sand, Silt	1-2	%
	· · · · · · · · · · · · · · · · · · ·	
		

Corrosive, Liquid PPE	waste requires the use of special protective e	equipment, please	expiain.	
SECTION 6: Attached 5	Supporting Documents			
	es, data and/or analysis attached to this form	n as part of the wa	ste	
approval package.				
	1,000			
SECTION 7: Incompati				
Please list ALL incompa	tibilities (if any):			
	NOS			
				
SECTION 9: Generator	's Knowledge Documentation			
	the hazardous waste characteristics, listed be	elow. WAS NOT PE	RFORMED	
	ng generator knowledge:	,		
•	0			
TCLP Metals:	BRL			
TCLP Volatiles:	BRL			
TCLP Semi-Volatiles:	BRL			
Reactivity:	Non-Reactive			
Corrosivity:	CORROSIVE			
Ignitability:	Non-Ignitable			
SECTION 9: Waste Recei	pt Classification Under 40 CFR 437 (Prtaining to	Pre-Treatment Requ	irements f	or Centralized Waste
Facilities)				_
	erial a wastewater or wastewater sludge?		YES	✓ NO
if 'Yes'	, complete this section.			
PLEASE CHI	ECK THE APPROPRIATE BOX. IF NO APPROPRIAT	TE CATEGORY, GO TO	THE NEXT	PAGE.
Metals Subcategory: Su	bpart A			
	roplating baths and/or sludges			
	hing rinse water and sludges			
Chromate v	wastes n control blow down water and sludges			
_ :	lizing solutions			
☐ Incineration	n wastewaters			
Waste liqui				
☐ Waste liqui ☐ Cyanide-co	ntaining wastes greater than 136 mg/l			
☐ Waste liqui ☐ Cyanide-co ☐ Waste acid	ntaining wastes greater than 136 mg/l s and bases with or without metals	ectroplating or phos	phating op	erations
☐ Waste liqui ☐ Cyanide-co ☐ Waste acid ☐ Cleaning, ri	ntaining wastes greater than 136 mg/l	ectroplating or phos	phating op	erations
Waste liqui Cyanide-co Waste acid Cleaning, ri Vibratory d	ntaining wastes greater than 136 mg/l s and bases with or without metals insing, and surface preparation solutions from el-		phating ope	erations
Waste liqui Cyanide-co Waste acid Cleaning, ri Vibratory d Alkaline an	ntaining wastes greater than 136 mg/l s and bases with or without metals insing, and surface preparation solutions from el- leburring wastewater d acid solutions used to clean metal parts or equ		phating ope	erations
Waste liqui Cyanide-co Waste acid Cleaning, ri Vibratory d Alkaline and Oils Subcategory: Subpo	ntaining wastes greater than 136 mg/l s and bases with or without metals insing, and surface preparation solutions from el- leburring wastewater d acid solutions used to clean metal parts or equ		phating ope	erations
Waste liqui Cyanide-co Waste acid Cleaning, ri Vibratory d Alkaline and Oils Subcategory: Subpo	ntaining wastes greater than 136 mg/l s and bases with or without metals insing, and surface preparation solutions from el- leburring wastewater d acid solutions used to clean metal parts or equ		phating op	erations
Waste liqui Cyanide-co Waste acid Cleaning, ri Vibratory d Alkaline and Oils Subcategory: Subpo	ntaining wastes greater than 136 mg/l s and bases with or without metals insing, and surface preparation solutions from el- leburring wastewater d acid solutions used to clean metal parts or equ		phating ope	erations
Waste liqui Cyanide-co Waste acid Cleaning, ri Vibratory d Alkaline and Oils Subcategory: Subpo Used oils Oil-water e Lubricants Coolants	ntaining wastes greater than 136 mg/l s and bases with or without metals insing, and surface preparation solutions from el- leburring wastewater d acid solutions used to clean metal parts or equ	lipment	phating op	erations
Waste liqui Cyanide-co Waste acid Cleaning, ri Vibratory d Alkaline and Oils Subcategory: Subpo Used oils Oil-water e Lubricants Coolants Contaminat Used petro	ntaining wastes greater than 136 mg/l s and bases with or without metals insing, and surface preparation solutions from ele leburring wastewater d acid solutions used to clean metal parts or equ art B mulsions or mixtures ted groundwater clean-up from petroleum sourcleum products	lipment	phating ope	erations
Waste liqui Cyanide-co Waste acid Cleaning, ri Vibratory d Alkaline and Oils Subcategory: Subpo Used oils Oil-water e Lubricants Coolants Contaminai	ntaining wastes greater than 136 mg/l s and bases with or without metals insing, and surface preparation solutions from el- leburring wastewater d acid solutions used to clean metal parts or equ art B mulsions or mixtures ted groundwater clean-up from petroleum sourc- leum products an-up	lipment	phating ope	erations

	Interceptor wastes
<u> </u>	Off-specification fuels
<u></u>	Underground storage remediation waste
<u></u>	Tank clean-out from petroleum or oily sources
L	Non-contact used glycols
<u> </u>	Aqueous and oil mixtures from parts cleaning operations
L	Wastewater from oil bearing paint washes
Organics Sub	<u>category</u> : Subpart C
	Landfill leachate
	Contaminated groundwater clean-up from non-petroleum sources
	Solvent-bearing wastes
	Off-specification organic product
<u></u>	Still bottoms
<u>_</u>	Byproduct waste glycol
<u> </u>	Wastewater from paint washes
<u> </u>	Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations
	Tank clean-out from organic, non-petroleum sources
	Talk deal-out from organic, non-petroleum sources
(1)	
	If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2)	
	If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in
	excess of the values listed below, the waste should be classified in the metals subcategory.
	Cadmium: 0.2 mg/L
	Chromium: 8.9 mg/L
	Copper: 4.9 mg/L
	Nickel: 37.5 mg/L
(3)	
	If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper,
	or nickel above any of the values listed above, the waste should be classified in the organics subcategory.
	☐ Metals Subcategory
	Oils Subcategory
	Organics Subcategory
SECTION 10	Additional Instructions
If you cannot	determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium,
•	el, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This
	o acceptance. The generator will be responsible for the cost of the analysis.
·	
SECTION 11	: Generator's Certification
The informa	tion contained herein is based on 💮 🗹 generator knowledge and/or 🔲 analytical data.
I hereby cer	tify that the above and attached description is complete and accurate to the best of
	ge and ability to determine that no deliberate or willful omissions of compostion
	xist and that all known or suspected hazards have been disclosed. I certify that the
	sted are representative of all materials described by this document.
materials te	seed are representative of all materials described by this document.
Authorized :	Signature: Date:
Authorized	Januare.
Printed Nan	ne/Title:
CES USE ON	LY (DO NOT WRITE IN THIS SPACE)
	$O \sim M$
Compliance	Officer: Valley & Trans
Date:	8-17-08 Approved Rejected
Approval Nu	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
LAPPIOVALING	<u>/ 400</u>



1. Base Pricing (including freight):
Transportation #70.00/hr.
Sodium Hudroxide management \$1.50/gal
Sodium Hydroxide management \$1.50/gal Washout of truck \$215,00
2. Contamination Limit (maximum limit before surchages apply):
N/A
3. Surcharge Pricing:
4. Special Testing Requirements:
PH, Yo caustic, Yosolids, TOC; Process to wwith the testing is ok.
5. Treatment and Handling Protocol:
Caustic recycling; It material can process to www Hen do so if not then process to the Devidder caustic tank.
If not then process to the Nervaner Carsons
6. Treated Wastewater Discharge Subcategory:
☐ Subcategory A ☐ Subcategory B ☐ Subcategory C



7. Tests for Product Recovered/Recycled (if applicable):	
8. Management for Product Recovered/Recycled (if applicable)	
Caustic recycling	



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 9/16/2008

Dear Jonny Salinas

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2960

Expiration Date 8/27/2010

Generator: Kinder Morgan **Address:** 906 Clinton Dr

Galena Park, TX 77547

Waste Information

Name of Waste: Sodium hydroxide TCEQ Waste Code #: Product

Container Type:

Detailed Description of Process Generating Waste:

Tank cleaning

Color: watery

Odor: odoless

pH: 13

Physical State:

Incompatibilities: acids

Safety Related Data/Special Handling:

Corrosive liquid PPE

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

5W) SHANNON \$ 2960

Quantity: 10,000 gallons



4904 Griggs Road, Houston, TX 77021
Phone: (713) 676-1460 Fax: (713) 676-1676
http://www.cesenvirgomental.com

				TCEQ Indi	ustrial Solid W	laste Per	mit Numb	er: 309	48					
			<u>U</u> .s.	EPA ID Nur	nber: TX0008	950461	ISWR	Numbe	r: 30900				_	
													•	
SECTION 1:	Gener	rator I	nformati	<u>on</u>										
Company:	Kinde	r Mor	gan - Gal	ena Park										
Address:	906 C	linton	Drive											
City:	Galen	a Park	۲		St	ate:	Ϋ́X		Zip:					77547
Contact:	Johnn	y Salir	nas				Title:							
Phone Nur	1ber:		713-72	4-4912			Fax Nur	nber:						
24/hr Phon	e Num	ber:					_							
US EPA ID N	Vo:		TX0026	481253			_							
State ID No);					3057	SIC Cod	e:						
SECTION 2: Company:	Billing	Infor	mation -	V	Same as Abo	ove								
Address:											-			
City:						ate:	Tinta	_	_Zip:					
Contact:							_Title:			_				
Phone Num	iber:						_ Fax Nur	nber:						
SECTION 3:	Gener	al Des	cription	of the Wa	ste									
Name of W	aste:		Sodium	Hydroxid	e									
Detailed De		on of F		· · · · · · · · · · · · · · · · · · ·										
			, , , , , , ,		,									
Tank Clean	ng												· "	
Physical Sta	ite:		Liquid Solid		_	idge ter Cak	2		Powder Combinat	ion				
Color:	water	γ			····		Odor:		Odorless					
Specific Gra	vity (w	ater=1	t):	_			-		Density:		lbs/g	gal		
Does this m	aterial	conta	in any to	tal pheno	lic compour	fabr		Yes	⊡	No				
Does this material contain any para substituted phenolic compounds?														
Is the Waste Answer "Yes	_						•				following:	Yes	U	No
2812		2813		2816	2819	2821		2822	2823	}	2824	2833		2834
2835		2836		2841	2842	2843		2844			2861	2865		2869
2873		2874		2876	2879	2891		2892			2896	289 9		2911
3312		4953		4959	9511									• -
Layers:	v		le-phase		_	ase								
Container T	Abe:		Orum	☐ To	te 🗹 Tru	ick 🗀	Other (e	xplain)					
6raguange		a a lebe		-4664 🗔	Youth [7]	0=0 T	a							

If "Yes", then please	ardous Waste" p complete, sign a			☐ Ye daus Constitu	-	No tached hereto		
If "Yes", Is it: Characteristic for To		☐ D00 ☐ D01	0 🗆 D011	☐ D00	☐ D003 (Rea		☐ D 009)
Characteristic for To	xic Organics: DO	12 thru D043	(please list all	that apply)				
Is this an "F" or "K" If "Yes", then plea			e?	☐ Ye	s 🗷] No		
Is this a commercial 40 CFR 261.33(e) or	•	· —	<u>-</u>		aste code u	nder		
If "Yes", then plea	se list ALL applic		,	No -				
If "Yes", then plea	se list ALL applic	able codes:	PRODUCT					
If "Yes", then plea	se list ALL applic	able codes:	PRODUCT		(aromatic h	ydrocarbons,	sadium hyd	droxide)
lf "Yes", then plea Texas State Waste C Proper US DOT Shipj	se list ALL applic ode Number: ping Name:	able codes: Flammable	PRODUCT Liquids, corr PG:	osive , N.O.S.	RQ:			droxide)
If "Yes", then plea Texas State Waste C Proper US DOT Ship Class:	se list ALL applic ode Number: ping Name:	Flammable	PRODUCT Liquids, corr PG:	osive , N.O.S.	RQ:	100		
If "Yes", then plea Texas State Waste C Proper US DOT Ship Class: Flash Point	ode Number: ping Name: 3 UN/NA:	Flammable UN2924	PRODUCT Liquids, corr PG: Reactive 0	osive , N.O.S. II ve Sulfides	RQ:	100 Cyanides	\$0 10	lids

COMPONENTS TABLE	CONCENTRATOIN	UNITS
The waste consists of the following materials	Ranges are acceptable	or %
Water	65-88	%
Sodium Hydroxide	2-5	%
Solids - Rust, Sand, Silt	5-10	%
Aromatic Hydrocarbons	5-20	%
		

lé éba hanc		<u>ated Data</u> vaste requires the use of special prote	ctive equipment please	evolain			
	Liquid PPE	•	cuve Equipment, please				
ecerion c	. 4	Companies Description					
		Supporting Documents es, data and/or analysis attached to th	is form as next of the w	2574			
approval p	-	es, data and/of analysis attached to th	is form as part of the w	0316			
	: Incompati						
Pléase list . 	ALL incompa	itibilities (If any):					
			,	<u> </u>			
		's Knowledge Documentation		COCORNADA			
	· ·	the hazardous waste characteristics, lis	ited below, WAS NOT P	FKLOKMEN			
pased upoi	n the followi	ng generator knowledge:					
TCLP Meta	ls:	BRL					
TCLP Volat	lles;	BRL					
TCLP Semi-	Volatiles:	BRL					
Reactivity:		Non-Reactive					
Corrosivity	:	CORROSIVE					
Ignitability	:	Non-Ignitable					
SECTION 9: Facilities)		pt Classification Under 40 CFR 437 (Prtali rial a wastewater or wastewater sludge?	log to Pre-Treatment Re	quirements (or Centralized Waste Treatmen NO		
		, complete this section.			Avail 11 -		
	PLEASE CHE	ECK THE APPROPRIATE BOX. IF NO APPR	OPRIATE CATEGORY, GO 1	TO THE NEXT	PAGE.		
	ateagry: Sui						
	Spent electi	roplating baths and/or sludges					
	Spent election Metal finish	roplating baths and/or sludges ning rinse water and sludges					
	Spent election Metal finish Chromate v	roplating baths and/or sludges ning rinse water and sludges wastes					
	Spent election Metal finish Chromate w Air pollution Spent anod	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges ixing solutions					
	Spent election Metal finish Chromate w Air pollution Spent anod Incineration	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges izing solutions n wastewaters					
	Spent election Metal finish Chromate water Air pollution Spent anod Incineration Waste liquid	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges lizing solutions n wastewaters d mercury					
	Spent election Metal finish Chromate w Air pollution Spent anod Incineration Waste liquid Cyanide-con	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges izing solutions n wastewaters					
	Spent election Metal finish Chromate w Air pollution Spent anod Incineration Waste liquid Cyanide-cod Waste acids	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges lizing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l	rom electroplating or pho	sphating ope	erations		
	Spent electric Metal finish Chromate was Air pollution Spent anod Incineration Waste liquid Cyanide-con Waste acids Cleaning, ric Vibratory de	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges ixing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l s and bases with or without metals nsing, and surface preparation solutions f eburring wastewater		sphating ope	erations		
	Spent electric Metal finish Chromate was Air pollution Spent anod Incineration Waste liquid Cyanide-con Waste acids Cleaning, ric Vibratory de	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges lizing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l s and bases with or without metals nsing, and surface preparation solutions f		sphating ope	erations		
	Spent election Metal finish Chromate was a fir pollution Spent anod Incineration Waste liquic Cyanide-con Waste acids Cleaning, rin Vibratory de Alkaline and	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges izing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l s and bases with or without metals nsing, and surface preparation solutions f eburring wastewater d acid solutions used to clean metal parts		sphating ope	erations		
	Spent electric Metal finish Chromate was a firm pollution Spent anod Incineration Waste liquid Cyanide-con Waste acids Cleaning, rid Alkallne and Used oils	roplating baths and/or sludges ning rinse water and sludges vastes n control blow down water and sludges ixing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l s and bases with or without metals nsing, and surface preparation solutions f eburring wastewater d acid solutions used to clean metal parts		sphating ope	erations		
Clis Subcate	Spent electric Metal finish Chromate was a firm pollution Spent anod Incineration Waste liquid Cyanide-con Waste acids Cleaning, rid Alkallne and Used oils Oil-water ed	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges izing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l s and bases with or without metals nsing, and surface preparation solutions f eburring wastewater d acid solutions used to clean metal parts		sphating ope	erations		
Clis Subcate	Spent electric Metal finish Chromate was a firm pollution Spent anod Incineration Waste liquid Cyanide-con Waste acids Cleaning, rid Alkallne and Used oils	roplating baths and/or sludges ning rinse water and sludges vastes n control blow down water and sludges ixing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l s and bases with or without metals nsing, and surface preparation solutions f eburring wastewater d acid solutions used to clean metal parts		sphating ope	erations		
Cils Subcate	Spent election Metal finish Chromate was a pollution Spent anod Incineration Waste liquidecon Cleaning, rid Vibratory de Alkaline and Used oils Oil-water ed Lubricants Coolants Contaminat	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges lizing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l s and bases with or without metals nsing, and surface preparation solutions f eburring wastewater d acid solutions used to clean metal parts art B mulsions or mixtures ted groundwater clean-up from petroleun	or equipment	sphating ope	erations		
Olls Subcats	Spent electric Metal finish Chromate was an incineration Waste liquid Cyanide-corporation Alkaline and Used oils Oil-water ed Lubricants Coolants Contaminat Used petrol	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges lizing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l s and bases with or without metals nsing, and surface preparation solutions f eburring wastewater d acid solutions used to clean metal parts art B mulsions or mixtures ted groundwater clean-up from petroleum leum products	or equipment	sphating ope	erations		
Olls Subcats	Spent election Metal finish Chromate was a pollution Spent anod Incineration Waste liquidecon Cleaning, rid Vibratory de Alkaline and Used oils Oil-water ed Lubricants Coolants Contaminat	roplating baths and/or sludges ning rinse water and sludges wastes n control blow down water and sludges izing solutions n wastewaters d mercury ntaining wastes greater than 136 mg/l s and bases with or without metals nsing, and surface preparation solutions f eburring wastewater d acid solutions used to clean metal parts int B mulsions or mixtures ted groundwater clean-up from petroleum leum products in-up	or equipment	sphating ope	erations		

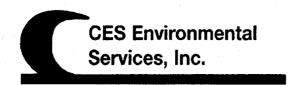
☐ Interceptor wastes ☐ Off-specification fuels ☐ Underground storage remediation waste ☐ Tank clean-out from petroleum or oily sources ☐ Non-contact used glycols ☐ Aqueous and oil mixtures from parts cleaning operations
Wastewater from oil bearing paint washes Organics Subcateaory: Subport C Landfill leachate Contaminated groundwater clean-up from non-petroleum sources Solvent-bearing wastes Off-specification organic product Still bottoms Byproduct waste glycol Wastewater from paint washes Wastewater from adhesives and/or epoxies formulation Wastewater from organic chemical product operations Tank clean-out from organic, non-petroleum sources
(1) If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
(2) If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in excess of the values listed below, the waste should be classified in the metals subcategory. Cadmium: 0.2 mg/L Chromium: 8.9 mg/L Copper: 4.9 mg/L Nickel: 37.5 mg/L
(3) If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper, or nickel above any of the values listed above, the waste should be classified in the organics subcategory. Metals Subcategory Oils Subcategory Organics Subcategory
SECTION 10 Additional instructions
If you cannot determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium, Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory a sample to determine these concentrations. This will be prior to acceptance. The generator will be responsible for the cost of the analysis.
SECTION 11: Generator's Certification The information contained herein is based on generator knowledge and/or analytical data. I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of compostion properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this document. Authorized Signature: Date:
Printed Name/Title: Sohnny Salinas EHS Specialist
CES USE ONLY (DO NOT WRITE IN THIS SPACE) Compliance Officer: Colour Tych Date: 91668 Approval Number: Rejected



FAX COVER LETTER

DATE:	9/9/08	
то:	Shannon	
FAX NUMBER:	713-676-1	676
FROM:	Sahany	
FAX NUMBER:	713-450-7485	
NO. OF PAGES:		(Including Cover)
COMMENTS:		

906 CLINTON DRIVE GALENA PARK, TX 77547 7 E 4-09 8-4-09 1 L AB



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Waste Pre-Acceptance/Approval Letter

Date 8/27/2008

Dear David Willis

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2961

Expiration Date 8/27/2010

Generator: RohMax USA, Inc.-Houston

Address: 1700 Tidal Road

Deer Park, TX 77536

Waste Information

Name of Waste: Universal waste fluorescent light bulbs

TCEQ Waste Code #: UNIV

Container Type:

box

Detailed Description of Process Generating Waste:

used flurorescent light bulbs

Color: varies

Odor: none

pH: na

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc. SP_





4904 Griggs Road, Houston, TX 77021 Phone: (713) 676-1460 Fax: (713) 676-1676

http://www.cesenvironmental.com
TCEQ Industrial Solid Waste Permit Number: 30948
U.S. EPA ID Number: TXD008950461 ISWR Number: 30900

SECTION 1: Generato	r Information					
Company: RohMax US						
Address: 1700 Tidal	Road		, , ,			
City: Deer Park		_State:	Texas	_Zip:		77536
Contact: David Willis			_Title:			
Phone Number:	281 228-8156		_Fax Number:			
24/hr Phone Number:			-			
US EPA ID No:	TXR000015669					
State ID No:		84595	SIC Code:	N/A		
SECTION 2: Billing Inf Company:	formation - 🗵 Same as	Above				
Address:						
City:		_State:		_Zip:		
Contact:			_Title:			
Phone Number:		.	_Fax Number:			
Name of Waste:	Description of the Waste Universal Waste Fluoresc		ılbs			
Detailed Description of	f Process Generating Was	te:				
Used Fluorescent Light I	Bulbs					
Physical State:	Liquid Solid	Sludge Filter Cak	e 🗆	Powder Combination		
Color: Varies			Odor:	None		
		-				
Specific Gravity (water	=1): <u>N/A</u>		_	Density: N/A	lbs/gal	
			-			
Does this material con	tain any total phenolic cor	npounds?	□ Ye	es 🗹 No		
Does this material con	tain any para substituted (phenolic co	ompounds?	☐ Yes	; ☑ No	
Answer "Yes" if your was	o the benzene waste opera ste contains benzene AND i	f the SIC co	de from your fa	cility is one of th	e following:	☑ No
2812 2813					2824 2833	
2835 2836					2861 2865	
2873 2874			2892	2893	2896 2899	2911
3312 4953	3 4959 9511					
Layers: 🗹 Si	ingle-phase 🗌 Mult	ti-phase				
Container Type:	Drum Tote	Truck 🗹	Other (explain	n)		
Frequency: Weekly Quantity:	y ☐ Monthly ☑ Yearly 6	☐ One-1	îme .			
Is this a USEPA "Hazar	rdous Waste" per 40CFR 2	61.37	☐ Ye	es 🗹 No		

Characteristic for Toxic!	Metals: ☐ D00	0 D01	5 ☐ D00			□ D 00)9
Characteristic for Toxic (Organics: D012 thru D0	143 (please i	ist all that apply	/) 			w
Is this an "F" or "K" Liste If "Yes", then please lis			☐ Y	es 🔽	No No		
ls this a commercial proc 40 CFR 261.33(e) or (f)? If "Yes", then please lis		Yes 🔽	rry a "U" or "f No	o" waste co	de under		
Texas State Waste Code		UNIV	***************************************		-		
Proper US DOT Shipping Class: 9 L	······		dous Substanc				
Class. 9 C	IN/NA: <u>UN3077</u>	_PG:	111	_RQ:	N/A		
Flash Point	рН	Reacti	ve Sulfides	Reactive	Cyanides	Sc	olids
N/A	N/A	0	<u>mg/l</u>	0	mg/l	10 0	%
Oil & Grease 0 mg/l	TOC mg/l	0	Zinc mg/l	0	pper mg/l	0	ickel mg/l
	ts of the following mater scent Light Bulbs	ials		Ranges are			or %
					-		
SECTION 5: Safety Relate f the handling of this waste							

SECTION 6: Attac	thed Supporting Documents	
	notes, data and/or analysis attached to this form as	s nort of the waste
approval package.	None	s part of the waste
approvar package.	11010	
SECTION 7: Incom		
	ompatibilities (if any):	
None		
<u> </u>		
	rator's Knowledge Documentation	
	of the hazardous waste characteristics, listed below	w, WAS NOT PERFORMED
based upon the folio	owing generator knowledge:	
TCLP Metals:	v	
TCLP Volatiles:	X	
TCLP Semi-Volatile:	— · · · · · · · · · · · · · · · · · · ·	
Reactivity:	X	
Corrosivity:	X	
Ignitability:	X	
-		
		to Pre-Treatment Requirements for Centralized Waste
Treatment Facilities		. Dyes El No
	naterial a wastewater or wastewater sludge? 'Yes', complete this section.	☐ YES ☑ NO
DICAR	E OUEOU THE ADDRODDIATE DOV. IF NO ADDRO	PRIATE CATECORY CO TO THE NEVT BACE
FLEASI	E CHECK THE APPROPRIATE BOX. IF NO APPROP	THATE CATEGORY, GO TO THE NEXT PAGE.
Metals Subcategory	: Subpart A	
	electroplating baths and/or sludges	
	nishing rinse water and sludges	
	ite wastes	
	ution control blow down water and sludges unodizing solutions	
	ation wastewaters	
	iquid mercury	
Cyanide	e-containing wastes greater than 136 mg/l	
	acids and bases with or without metals	
	g, rinsing, and surface preparation solutions from electr	oplating or phosphating operations
	y deburring wastewater	
☐ Aikaiine	and acid solutions used to clean metal parts or equipment	terit
Oils Subcategory: S	Subpart B	
Used oil		
	er emulsions or mixtures	
Lubricar		
☐ Coolants		
	inated groundwater clean-up from petroleum sources etroleum products	
	clean-up	
☐ Bilge wa		
	ash waters from petroleum sources	

Interceptor wastes	
☐ Off-specification fuels ☐ Underground storage remediation waste	
☐ Tank clean-out from petroleum or oily sources	
Non-contact used glycols	
Aqueous and oil mixtures from parts cleaning operations	
☐ Wastewater from oil bearing paint washes	
Organics Subcategory: Subpart C	
Landfill leachate	
Contaminated groundwater clean-up from non-petroleum sources	
 ☐ Solvent-bearing wastes ☐ Off-specification organic product 	
Still bottoms	
Byproduct waste glycol	
☐ Wastewater from paint washes	
Wastewater from adhesives and/or epoxies formulation	
Wastewater from organic chemical product operations	
☐ Tank clean-out from organic, non-petroleum sources	
(1)	
If the waste contains oil and grease at or in excess of 100 mg/L, the wa	aste should be classified in the oils subcategory.
(2)	
If the waste contains oil and grease less than 100 mg/L, and has any o	· · · · · · · · · · · · · · · · · · ·
excess of the values listed below, the waste should be classified in the	metals subcategory.
Cadmium: 0.2 mg/L	
Chromium: 8.9 mg/L Copper: 4.9 mg/L	
Nickel: 37.5 mg/L	
raidrai. Or o nigre	
(3)	
If the waste contains oil and grease less than 100 mg/L, and does not less than 100 mg/L, and does not less than 100 mg/L.	
or nickel above any of the values listed above, the waste should be cla	ssilled in the organics subcategory.
 ☐ Metals Subcategory ☐ Oils Subcategory 	
☐ Organics Subcategory	
_ , ,	,
SECTION 10 Additional Instructions	
If you cannot determine the correct subcategory in Section 9 and you did not furnish	data for the concentration of Cadmium, Chromium,
Copper, Nickel, and Oil and Grease, CES will send offsite to a commercial laboratory	
will be prior to acceptance. The generator will be responsible for the cost of the anal	ysis.
SECTION 11: Generator's Certification	
The information contained herein is based on generator knowledge	and/or analytical data.
I hereby certify that the above and attached description is complete and accur	
my knowledge and ability to determine that no deliberate or willful omissions o	
properties exist and that all known pususpected hazards have been disclosed	
materials tested are representative of all materials described in this document	t. ,
Authorized Simetum	Date: 8-17-08
Authorized Signature:	Date: 4 17 0
Printed Name/Title: Paud Wills	
	_
CES USE ONLY (DO NOT WRITE IN THIS SPACE)	
Compliance Officer: Labherthapa	
Date: \$27-0\(\) Approved \(\) Rejected	1
Approval Number: 2961	
- 701	1



PROCESS FACILITY INFORMATION (CES USE ONLY)!!!

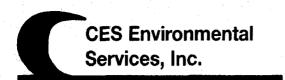
1. Base Pricing (including freight):
250 + CFS / load
250 + C.F.S / load
2. Contamination Limit (maximum limit before surchages apply):
HAS
3. Surcharge Pricing:
NIA
4. Special Testing Requirements:
NIA
5. Treatment and Handling Protocol:
Recycle
6. Treated Wastewater Discharge Subcategory:
☐ Subcategory A ☐ Subcategory B ☐ Subcategory C



PROCESS FACILITY INFORMATION (CES USE ONLY)!!!

7. Tests for Product Recovered/Recycled (if a	applicable):		
		·	
8. Management for Product Recovered/Recyc	cled (if applicable)		

2939 After chemical Organian



4904 Griggs Road Houston TX 77021 Tel. (713) 676-1460 Fax. (713) 676-1460

Material / Product Approval Letter

Date 8/21/2008

Dear Ed Cox

Thank you for choosing CES Environmental Services, Inc. for your material / product recycling needs. The following material has been approved at our facility in Houston, TX. If the material received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # 2939

Expiration Date 8/21/2010

Producer: Afton Chemical Corporation

Address:

Suget, IL 62201

Material / Product Information

Name of Material / Product hitech 059 performance additive Container Type:

Detailed Description of Process Generating or Producing the Material / Product:

out of date product

Color: white

Odor: pungent

pH: neutral

Physical State:

Incompatibilities: strong oxidizers **Safety Related Data/Special Handling:**

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President CES Environmental Services, Inc.



4904 Griggs Road

Houston, TX 77021

Phone: (713) 676-1460

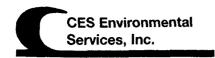
Fax: (713) 676-1676 http://www.cesenvironmental.com

TCEQ Industrial Solid Waste Permit No: 30948 U.S. EPA ID No: TXD008950461 ISWR No: 30900

SECTION 1: Mater	rial Producer Inform	<u>ation</u>			
Company:	Afton Chemical Co	orportation			
Address:	501 Monsanto Ave	nue			
City, State, Zip:	Suget, Il 66201				
Contact:	Ed Cox		Title:		
Phone No:	(618) 583-1078		Fax No:	(618) 583	3-1388
24/hr Phone:	(618) 583-1078		_		
U.S. EPA I.D. No:	na				
State I.D.	na		SIC Code:	na	
SECTION 2: Billing	g Information – 🛛 S	ame as Above			
Company:					
Address:					
City, State, Zip:					
Contact:		Title:			
Phone No:		Fax No:			
SECTION 3: Gener	al Description of the	Material / Product			
Name of Material / 1	Product: Hitec				
out of DA	te Product				
Physical State:	☐ Liquid ☑ Solid	☐ Sludge ☐ Filter Cake	☐ Powder ☐ Combinatio	n	
Color: white	C	odor: Punge wi			
Specific Gravity (wa	nter=1):94	Density: lbs/gal	>		
Does this material co	ontain any total pher	nolic compounds? 🗌 Yes	No		
Does this material co	ontain any para subs	tituted phenolic compoun	ds?	No	
Layers:	Single-phase	☐ Multi-phase			
Container Type:	☑ Drum	☐ Tote ☐	Truck	П	Other (explain)
Container Size:				_	
		· · · · · · · · · · · · · · · · · · ·			
Frequency:	☐ Weekly	☐ Monthly ☐	Quarterly	B	Yearly
Number of Units (co		Other:	•	_	•
`	, 	Pordet	•		
Proper U.S. DOT Sh	nipping Name:	NON RCRA	NON D	07 R	equiated Material
Class:	UN/NA		PG: NA		RQ: NA"

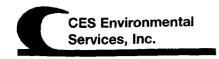
V _c									
Flash Point	Mey tyal	N/A	N/A		Solids				
Oil&Grease	TOC	Zinc	Copper	Nickel					
mg/l	mg/l		mg/l						
SECTION 4: Physic	al and Chemical D	ata							
	COMPONENT			Concentratio		Units			
The material / product consists of the following materials Ranges are acceptable or %									
Hitel 054 Performance Additive (Scensor) 100 40									
	· · · · · · · · · · · · · · · · · · ·								
Standard SECTION 6: Attach List all documents, not HiTEC 059 MSDS SECTION 7: Incompostrong Oxidizers SECTION 8: Materi The information conta attached description is omissions of compositested are representative	ed Supporting Documents, data, and/or a material / produce otes, data, and/or a materialities atibilities (if any): al Producer's Cert ined herein is based as complete and accition properties exist we of all materials de	nalysis attached to this fo	rm as part of the ge and/or ⊠ analy nowledge and abi	material / prod ytical data. I he lity to determinate been disclos	duct profi	ify that the above and deliberate or willful			
Authorized Signature	:			Date:					
Printed Name/Title:									
CES USE ONLY (DO NO						,			
Technical Manager:	Colon ST	han							
Date:8/7	21-08 App	proved Rejected							

Approval Number: 2939



PROCESS FACILITY INFORMATION (CES USE ONLY!!)

1.	Base Pricing (including freight):
	Base Pricing (including freight): If brought in By CES on PCI back have: no charge! no payment. If brought in by ond side transporter at customer expanse: pay \$0.15/get
	no payment.
	If brought in by ontside transporter as customer expense:
	pay \$0.15/get
2.	Contamination Limits (maximum limit before surcharges apply):
 [Commission values (alemanian anni value on one one one one one one one one one
1	
Į	
3.	Surcharge Pricing:
1	
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Į	
4.	Special Testing Requirements:
	Rocard quantity in each down. Number each drum and record amount and product type on inventory
	and record amount and product type on invendory
	US.
5.	Treatment and Handling Protocol:
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	Microsof of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the
	Once invendory has been given to product sales, the material will be resold so is, according to directed by product sales person.
	directed by product sales person.
6.	Treated Wastewater Discharge Subcategory:
	☐ Subcategory A ☐ Subcategory B ☐ Subcategory C



PROCESS FACILITY INFORMATION (CES USE ONLY!!)

7.	Tests for Product Recovered/Recycled (if applicable):
	Secret testing requirements
8.	Management for Product Recovered/Recycled (if applicable);
	See trechment & handling protocol



Material Safety Data Sheet

HiTEC 059 Performance Additive

MSDS no.

H059

HiTEC is a trademark owned by Afton Chemical Corporation or one of its subsidiaries.

Product and company identification

Product use

Petrochemical industry: Friction Modifier

Date of issue/Revisions

26 June 2008

In case of emergency - Chemical

1-800-403-0044 (US & Canada) 1-804-648-7727 (International) 32-2-507-20-64 (Europe) 81-3-5210-4890 (Japan)

Manufacturer / Supplier

Afton Chemical Corporation 500 Spring St. Richmond, VA 23219 1-804-788-5800

In Japan: Afton Chemical Japan Corporation Sumitomo Fudousan Sanbancho Bldg. 5F 6-26 Sanbancho, Chiyoda-ku Tokyo 102-0075 Japan Emergency phone: 81-3-5210-4890 Afton Chemical Limited Euro-Tech Centre

London Road, Bracknell, Berkshire

RG12 2UW, England 44 1344-304141 msds@aftonchemical.com

In Australia:

Afton Chemical Asia Pacific Company

Level 9, 20 Berry Street North Sydney, NSW 2060

Australia

Telephone number: 02-9923-1588 Business Hours: 9:00am - 5:00pm

Hazards identification

Notice to reader

Afton operates a world-wide system for hazard communication. Some hazards shown in Section 2 may apply to non-EU countries and may not result in classification and labeling in the EU. Please see Sections 3 and 15 for country specific classification information, and Section 11 for additional details.

Europe: The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Australia: NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS.

Primary hazards and critical effects

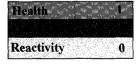
: WARNING!

CAUSES EYE IRRITATION.

Environmental hazards

: Not classified as dangerous for the environment according to EC criteria.

Hazardous Material Information System (U.S.A.)



GHS Classification

Hazard classification

: Not regulated.

Symbol

.

Signal word

:

Hazard statements

: No known significant effects or critical hazards.

HiTEC 059 Performance Additive

In Case of Emergency 1-800-403-0044 (US/Canada) 1-804-648-7727 (Int'l) 32-2-507-Page: 2/5

Precautionary statements

Prevention

: Not applicable.

Response

: Not applicable.

Storage

: Not applicable.

Disposal

: Not applicable.

3. Composition/Information on ingredients

Note: see section 8 for occupational exposure limits and section 11 for LC50/LD50 information

Substance/Preparation

: Substance

Ingredient name

CAS no.

Conc. (% w/w) EU Classification

WHMIS Regulated?

No component is present at sufficient concentration to require a hazard classification for health in accordance with EC Directives.

4. First aid measures

Inhalation

: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Ingestion

: If affected person is fully conscious, give one glass of water to drink. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Skin contact

: Wash with soap and water. Get medical attention if irritation develops.

Eye contact

: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention

5. Fire-fighting measures

Extinguishing media

: In case of fire, use water spray (fog), foam, dry chemical or CO₂.

Fire-fighting procedures

: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Hazardous decomposition products

Decomposition products may include the following materials: carbon dioxide

carbon monoxide phosphorus oxides

Flash point

Closed cup: 94°C (201.2°F) [Minimum Pensky-Martens.]

6. Accidental release measures

Personal precautions

: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5).

Environmental precautions and clean-up methods

If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways.

Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling

: Avoid contact with eyes. Wash thoroughly after handling.

Storage

Keep container tightly closed. Keep container in a cool, well-ventilated area

8. Exposure controls and personal protection

Engineering controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal protective equipment

Respiratory system

: Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s).

Skin and body

: Disposable outer garments when there is a risk of contact with the material.

In Case of Emergency 1-800-403-0044 (US/Canada) 1-804-648-7727 (Int'l) 32-2-507-Page: 3/5 HiTEC 059 Performance Additive 20-64 (Eu)

Hands

Hand Protection: Wear chemical resistant gloves. Nitrile gloves of minimum thickness 0.4 mm have an expected breakthrough time of 480 minutes or less when in frequent contact with the product. Due to variable exposure conditions the user must consider that the practical use of a chemical-protective glove in practice may be much shorter than the permeation time above. Manufacturer's directions for use, especially about the minimum thickness and the minimum breakthrough time, must be observed. This information does not replace suitability tests by the end user since glove protection varies depending on the conditions under which the product is used.

Eves

Safety goggles are considered minimum protection. Goggles with a face shield may be necessary depending on quantity of material and conditions of use.

Occupational exposure limits

OEL United States OEL Canada Ingredient name OEL Europe **OEL Australia**

Exposure limit not established

Physical and chemical properties

Physical state and Appearance : Solid. [Waxy solid.]

Color

: White.

Odor

Pungent.

Density

: Not determined.

Specific gravity

: 0.94 @ 15.6/15.6 °C.

Solubility

Viscosity

: 9.5 cSt @ 60°C

4.0 cSt @ 100°C : 38°C (100.4°F)

Melting/Freezing Point (°C): Auto-ignition temperature

: Not determined

Flash point

: Closed cup: 94°C (201.2°F) [Minimum Pensky-Martens.]

Stability and reactivity

Stability

: The product is stable.

Materials to avoid

: Strong oxidizing and reducing agents.

Conditions to avoid

: High temperatures, sparks, and open flames.

Toxicological information

Routes of entry

: Skin, Eyes, Ingestion, and Inhalation.

Target organs

: Contains material which may cause damage to the following organs: eyes

Acute effects

Inhalation

Not determined.

Ingestion

: Not determined

Skin contact

: Non-irritating to the skin.

Eye contact

: Irritating to eyes.

Does not meet EU R41 or R36 classification criteria.

Adverse effects

: Not determined

Carcinogenic effects

Product/ingredient name

IARC

EPA

NIOSH

NTP

OSHA

EU

Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Toxicity data

Product/ingredient name

Result LD50 Dermal

Species Rabbit

Dose >20000 ma/ka Exposure

HiTEC 059 Performance Additive

LD50 Oral

Rat

9050 mg/kg

Other information

: Not available

HiTEC 059 Performance Additive

In Case of Emergency 1-800-403-0044 (US/Canada) 1-804-648-7727 (Int'l) 32-2-507-Page: 4/5 20-64 (Eu)

12. Ecological information

Environmental hazards

: Not classified as dangerous for the environment according to EC criteria. Based on calculation.

Environmental fate

This product contains components which may be persistent in the environment.

13. Disposal considerations

Waste handling and disposal

: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	Not regulated.	-	_	-		Remarks
TDG Classification	Not regulated.	-	-	_		-
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-
ADG Class	Not regulated.	-	-	-		-

Notice to reader

The above transport information is provided to assist in the proper classification of this product and may not be suitable for all shipping conditions.

15. Regulatory information

EU regulations

Risk phrases

: This product is not classified according to EU legislation.

Safety phrases

: Not applicable.

US regulations

SARA 313 toxic chemical notification and release reporting (w/w%)

: No SARA 313 chemicals are present above the reporting threshold.

SARA 311/312 Hazardous Categorization

: SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

RQ (Reportable quantity)

: CERCLA: Hazardous substances.: No products were found.

State - California Prop. 65

: No products were found.

Canadian regulations

WHMIS (Classification)

: Not determined.

International Inventory Status

United States (TSCA) :

All components are listed or exempted.

Canada

All components are listed or exempted.

Europe

All components are listed or exempted.

Japan (ENCS)

All components are listed or exempted.

Australia (NICNAS)

All components are listed or exempted.

HITEC 059 Performance Additive In Case of Emergency 1-800-403-0044 (US/Canada) 1-804-648-7727 (Int'l) 32-2-507-Page: 5/5

Korea (ECL) : All components are listed or exempted.

China (IECSC) : All components are listed or exempted.

Philippines (PICCS) : All components are listed or exempted.

Other information

PREPARATION INFORMATION

Validated by HS&E Department (Tel: +1 804 788 5800) on 6/26/2008.

-

Date of printing : 7/1/2008.

Indicates information that has changed from previously issued version.

Notice to reader

This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. Afton makes no representation as to completeness or accuracy. In no event will Afton be responsible for damages of any nature whatsoever resulting from the use or reliance upon the information and recommendations.

ADDRESS CONTACT INFORMATION

In the United States and Canada: Afton Chemical Corporation 500 Spring Street Richmond, Virginia USA 23219-2183 Telephone number: 804-788-5800

In Singapore: 111 Somerset Road #09-05 Singapore Power Building Singapore 238164

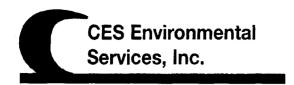
Telephone number: 65-6732-0822

In Australia: Afton Chemical Asia Pacific Company Level 9, 20 Berry Street North Sydney, NSW 2060 Australia Telephone number: 02-9923-1588 Business Hours: 9:00am - 5:00pm In Europe: Afton Chemical Limited Euro-Tech Centre London Road, Bracknell, Berkshire RG12 2UW, England 44-1344-304141

In Japan: Afton Chemical Japan Corporation Sumitomo Fudousan Sanbancho Bldg. 5F 6-26 Sanbancho, Chiyoda-ku Tokyo 102-0075 Japan Emergency phone: 81-3-5210-4890

* * * END OF MSDS * * *

Aminforge 2940 Afron Chemical Conduction



Waste Pre-Acceptance/Approval Letter

Date 10/24/2008

Dear Jimmy Watts

Thank you for choosing CES Environmental Services, Inc. for you waste disposal and/or recycling needs. The following waste stream has been approved at our facility in Houston, TX. If the waste received does not conform to the profile, then rejection or additional charges may apply.

CES Profile # HOU-2940

Expiration Date 10/24/2010

Generator: Ameriforge Woodville

Address: 483 CR 3020

Woodville, TX 75979

Waste Information

Name of Waste: Oily water separator sludge

TCEQ Waste Code #: 10016091

Container Type:

Detailed Description of Process Generating Waste:

Sludge from the oily water separator in a facility that manufactures carbon steel phlanges

Color: varies

Odor: hydrocrabon

pH: 8.61

Physical State:

Incompatibilities: none

Safety Related Data/Special Handling:

std

If you have any questions concerning this approval and/or the conditions, then please feel free to contact our office at (713) 676-1460.

Thank you,

Matt Bowman, President

CES Environmental Services, Inc.





4904 Griggs Road, Houston, TX 77021
Phone: (713) 676-1460 Fax: (713) 676-1676
http://www.cesenvironmental.com

http://www.cesenvironmental.com
TCEQ Industrial Solid Waste Permit Number: 30948

teustin Teenina

☑ No

П

Yes

U.S. EPA ID Number: TXD008950461 ISWR Number: 30900 **SECTION 1: Generator Information** Company: Ameriforge Woodville 483 CR 3020 Address: Woodville 75979 City: State: TX Zip: Contact: Jimmy Watts Title: Maintenance Manager **Phone Number:** 409-283-8138 x 5327 Fax Number: 409-331-9089 24/hr Phone Number: 409-429-0489 US EPA ID No: TXD988041620 State ID No: SIC Code: SECTION 2: Billing information - Same as Above Company: Ameriforge Woodville Address: P.O. Box 2070 Woodville TX 75979 City: State: ZID: Title: Contact: Fax Number: Phone Number: **SECTION 3: General Description of the Waste** Name of Waste: Oily Water Seperator Sludge **Detailed Description of Process Generating Waste:** Sludge from the oily water separator in a facility that manufactures carbon steel phlanges **Physical State:** Liquid Sludge Powder Solid Filter Cake Combination Color: Odor: varies Hydrocarbon Specific Gravity (water=1): 1.1 Density: 8.4 lbs/gal Does this material contain any total phenolic compounds? Yes ☑ No Does this material contain any para substituted phenolic compounds? Yes ☑ No is the Waste subject to the benzene waste operation NESHAP? (40 CFR Part 61, Subpart FF) No Yes 🔽 П Answer "Yes" if your waste contains benzene AND if the SIC code from your facility is one of the following: 2813 2821 2822 2823 2834 2812 2816 2819 2824 2833 2843 2851 2869 2835 2836 2841 2842 2844 2861 2865 2873 2874 2876 2879 2891 2892 2893 2896 2899 2911 3312 4953 4959 9511 Multi-phase Single-phase $\overline{\mathbf{v}}$ Layers: ☑ Drum ☐ Tote ☐ Truck ☐ Other (explain) Container Type: Frequency: Weekiy Monthly Yearly One-Time Quantity:

is this a USEPA "Hazardous Waste" per 40CFR 261.3?

if "Yes", then please c	omplete, sign an	d date the l	Jnderlying l	Li lazardous Con	ು stituents Fo	rm attached	hereto	
If "Yes", Is it: Characteristic for Toxic Characteristic for Toxic		☐ D004 ☐ D010	□D011	☐ D006			☐ D009	
is this an "F" or "K" Listed waste or mixed with one?								
is this a commercial pr 40 CFR 261.33(e) or (f)? If "Yes", then please	•		Yes 🗹	ry a "U" or "P No	" waste co	de under		
Texas State Waste Cod	e Number:		100	011009	71	-		
Proper US DOT Shippin	-		Non DOT R		50.	414		
Class: NA	UN/NA:	NA .	PG:	NA	_RQ:	NA		
Flash Point	pH		Reactiv	re Sulfides	Reactive	Cyanides	Sol	ids
>150	8.61		0	<u>mg/l</u>	0	mg/l	0	%
Oil & Grease	TOC			Zinc	·	pper	Nic	
>1500 <u>mg/l</u>	>100	<u>mg/l</u>	0	<u>mg/l</u>	0	mg/l	0	<u>mg/l</u>
SECTION 4: Physical ar	nd Chemical Data				CONCENT	PATOIN		UNITS
	ists of the follow		ls	F	Ranges are			or %
THE WALL COIN	Oily Sludge	mg matom			95-			%
	Water				1-4	5		%
	·							
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W-1								
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SECTION 5: Safety Rela								
If the handling of this was		se of speci	al protective	equipment, pl	lease explai	n.		

<u></u>			
	ched Supporting Documents notes, data and/or analysis attached to this form a Analytical 7060126	as part of the waste	
SECTION 7: Incor Please list ALL inco None	mpatibilities pmpatibilities (if any):		
Laboratory analysis based upon the following	erator's Knowledge Documentation of the hazardous waste characteristics, listed belowing generator knowledge:	ow, WAS NOT PERFORMED	
TCLP Metals: TCLP Volatiles:	X	WARRIED WARRENCE TO THE PARTY OF THE PARTY O	
TCLP Semi-Volatile			
Reactivity:	~, <u> </u>		
Corrosivity:			
Ignitability:			
Treatment Facilities Is this r		g to Pre-Treatment Requirements for Centralized Wa	<u>ste</u>
PLEAS	E CHECK THE APPROPRIATE BOX. IF NO APPRO	PRIATE CATEGORY, GO TO THE NEXT PAGE.	
Metals Subcategory			
	electroplating baths and/or sludges		
	nishing rinse water and sludges ate wastes		
	ution control blow down water and sludges		
	nodizing solutions		
	ation wastewaters		
	liquid mercury e-containing wastes greater than 136 mg/i		
	acids and bases with or without metals		
	ig, rinsing, and surface preparation solutions from elec	troplating or phosphating operations	
	ry deburring wastewater		
☐ Alkaline	e and acid solutions used to clean metal parts or equip	ment	
Oils Subcategory:	Subnert R		
Used oi			
Oil-wate	er emulsions or mixtures		
Lubrica:	****		
Coolant			
	ilnated groundwater clean-up from petroleum sources etroleum products		
☐ Osed po			
☐ Bilge w	ater		
☐ Rinse/w	ash waters from petroleum sources		
		•	

	Interceptor wastes
	Off-specification fuels
Г	Underground storage remediation waste
	Tank clean-out from petroleum or city sources
	Non-contact used glycols
	Aqueous and oil mixtures from parts cleaning operations
	Wastewater from oil bearing paint washes
	<u>vbcategory</u> : Subpart C
	Landfill leachate
<u> </u>	Contaminated groundwater clean-up from non-petroleum sources
<u> </u>	Solvent-bearing wastes
<u> </u>	Off-specification organic product
	Byproduct waste glycol
	Wastewater from paint washes
	Wastewater from adhesives and/or epoxies formulation
	Wastewater from organic chemical product operations
<u></u>	Tank clean-out from organic, non-petroleum sources
743	
(1)	If the waste contains oil and grease at or in excess of 100 mg/L, the waste should be classified in the oils subcategory.
	if the waste contains of and groups at or in excess or for high, the waste shaded by dissented in the shocketegory.
(2)	
(<i>)</i>	If the waste contains oil and grease less than 100 mg/L, and has any of the pollutants listed below in concentrations in
	excess of the values listed below, the waste should be classified in the metals subcategory.
	Cadmium: 0.2 mg/L
	Chromium: 8.9 mg/L
	Copper: 4.9 mg/L
	Nickel: 37.5 mg/L
	Works. 37.3 High
(3)	
(-)	If the waste contains oil and grease less than 100 mg/L, and does not have concentrations of cadmium, chromium, copper,
	or nickel above any of the values listed above, the waste should be classified in the organics subcategory.
	☐ Metals Subcategory
	Oils Subcategory
	☐ Organics Subcategory
	C. Organica Guidategory
SECTION 40	Additional Instructions
SECTION 10	Additional mediculary
If you cannot	determine the correct subcategory in Section 9 and you did not furnish data for the concentration of Cadmium, Chromium,
	el, and Oil and Grease. CES will send offsite to a commercial laboratory a sample to determine these concentrations. This
	o acceptance. The generator will be responsible for the cost of the analysis.
····· •• p ·	
SECTION 1	1: Generator's Certification
	tion contained herein is based on \square generator knowledge and/or \square analytical data.
	tify that the above and attached description is complete and accurate to the best of
	ge and ability to determine that no deliberate or willful omissions of compostion
	xist and that all known or suspected hazards have been disclosed. I certify that the
materials re	sted are representative of all materials described by this document.
المستحد علاء ع	Standard Angelenon
Authorizea	Signature:
D-1-4-4 N	
Printed Na	ne/Title: Jimmy Watts / Maintenance Manager
OFO 116= -	ALLY OO NOT MOTE IN THE SPACE
CES USE C	NLY (DO NOT WRITE IN THIS SPACE)
O = #=	Officer V In I will an Arm
Compliance	
Date:	10-24-08 Approved Rejected
Approva! Nu	mber: 2940



PROCESS FACILITY INFORMATION (CES USE ONLY)!!!

1. Base Pricing (including freight):
\$65.00/drum plus freight
2. Contamination Limit (maximum limit before surchages apply):
None
3. Surcharge Pricing:
None
4. Special Testing Requirements:
None
F. Tuestus and the alline Bustonell
5. Treatment and Handling Protocol: Put in Class 1 box
Tut III Class I box
6. Treated Wastewater Discharge Subcategory:
☐ Subcategory A ☐ Subcategory B ☐ Subcategory C



PROCESS FACILITY INFORMATION (CES USE ONLY)!!!

7. Tests for Product Recovered/Recycled (if applicable):	
NA .	
	
8. Management for Product Recovered/Recycled (if applicable)	
NA	

Mercury Environmental Services, Inc.

6913 HWY 225, Deer Park, TX 77536 Phone: (281)-476-4534 Fax: (281)-476-4406

CES Environmental Services

4904 Griggs Rd Houston, TX 77021 Phone: (713) 676-1460 (713) 676-1676

Attn: **Dana Carter**

- CERTIFICATE OF RESULTS -

MES Lab#:

7060126

Client Sample ID:

Sump Sludge

Extended ID:

Texas Metal Works

Sample Collect Date: 6/6/2007 @ 4:00:00 PM

Sample Type:

Comp

Sample Receipt Date: 6/7/2007 @ 4:35:00 PM

MDL				A = -1 = + 110 011
	RL	Result	Units	Analyst: HDGIL_ Date / Time_
0.014	5	< 0.014	mg/L	6/12/2007 / 12:18 AM
0.0005	100	0.397	mg/L	6/12/2007 / 12:18 AM
0.002	1	< 0.002	mg/L	6/12/2007 / 12:18 AM
0.002	5	0.004	mg/L	6/12/2007 / 12:1(I AM
0.005	5	< 0.005	mg/L	6/12/2007 / 12:18 AM
0.024	1	< 0.024	mg/L	6/12/2007 / 12:18 AM
0.002	5	< 0.002	mg/L	6/12/2007 / 12:13 AM
MDL	RL	Result	Units	Analyst: AM Date / Time
0.0002	0.2	< 0.0002	mg/L	6/8/2007 / 5:27 PM
MDL		Result	Units	Analyst: HDG Date / Time
0.5		< 0.5	mg/kg	6/11/2007 / 11:27 PM
0.5		< 0.5	mg/kg	6/11/2007 / 11:27 PM
0.5		< 0.5	mg/kg	6/11/2007 / 11:27 PM
0.5		< 0,5	mg/kg	6/11/2007 / 11:27 PM
0.5		< 0.5	mg/kg	6/11/2007 / 11:27 PM
en Cyanide MDL		Result	Units	Analyst: CL Date / Time
		< 0.25	mg/kg	6/8/2007 / 2:15 PM
0.25		v. _	17707112	0/0/2007 Z. [1] W
		5. 2 0	, , ,	
0.25 en Sulfide MDL		Result	Units	Analyst: CL Date / Time
	0,002 0,002 0.005 0.024 0.002 MDL 0.0002 MDL 0.5 0.5 0.5 0.5	0,002 1 0,002 5 0.005 5 0.024 1 0.002 5 MDL RL 0.0002 0.2 MDL 0.5 0.5 0.5 0.5 0.5 0.5 0.5 cn Cyanide	0,002 1 < 0,002 0,002 5 0.004 0.005 5 < 0.005 0.024 1 < 0.024 0.002 5 < 0.002 MDL RL Result 0.0002 0.2 < 0.0002 MDL Result 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5 0.5 < 0.5	0,002 1 < 0,002 mg/L 0,002 5

Report Date: 14-Jun-07

Page 1 of 2

- CERTIFICATE OF RESULTS -

MES Lab#:

7060126

Client Sample ID:

Sump Sludge

Extended ID:

Texas Metal Works

Sample Collect Date: 6/6/2007 @ 4:00:00 PM

Sample Receipt Date: 6/7/2007 @ 4:35:00 PM

Sample Type:

Comp

Corrosivity: pH Method: SW-846 9045	MDL	Result	Units _	Analyst: CL Date / Time
pН		8.61		6/8/2007 / 10:48 AM
Ignitability Method: SW-846 1010	MDL	Result	Units	Analyst: DEB Date / Time
Flashpoint		>150	deg F	6/8/2007 / 11:3() AM

Flags: H: Exceeds "High Limit" L: Below "Low Limit" RL≂regulatory limit

Holland D. Gilmore, Laboratory Director

Thursday, June 14, 2007

Date

Report Date: 14-Jun-07

7060125 - 7060126

MERCURY ENVIRONMENTAL SERVICES **QA/QC REPORT**

ANALYTE	MB mg/L	LCS %REC	LCSD %REC	RPD	CCB mg/L	CCV %REC	MS %REC	MSD %REC	RP[:
Arsenic Barium Cadmium Chromium Lead Mercury Selenium Silver	< 0.002 < 0.002 < 0.001 < 0.001 < 0.002 < 0.0002 < 0.024 < 0.001	94 105.0 109.4 109 106.1 101.0 108.1 110	94 105 110.9 107 109.2 97.5 91.4 109	0.7 0.43 1.32 2.50 2.90 3.53 16.7 0.91	< 0.002 < 0.002 < 0.001 < 0.001 < 0.002 < 0.0002 < 0.024 < 0.001	91 101 107 103 107 102.0 87 104	76.4 65.2 70.9 70.0 67.7 64.9 73.4	77.2 67.7 72.0 72.2 71.9 61.8 75.6	1.04 3.8 1.5 3.0 6.1 5.0 3.06
ANALYTE		STD							
filashpoint		82°F							
ANALYTE	BUFFER 7.0	ORIG	AUA	RPD					
Н	7.0	8.23	8,26	0.00					
ANALYTE		ORIG mg/kg	DUP mg/kg	RPD					
Reactivity as Hydrogen Sulfide		< 0.25	< 0.25	0.00					
ANALYTE		ORIG mg/kg	DUP mg/kg	RPD	STD %REC				

Reactivity as Hydrogen Cyanide < 0.25 < 0.25 0.00 104

ANALYTES	METHOD 8021B	MB mg/kg	MS %REC	MSD %REC	RPD	STD %REC	
Benzene		< 0,5	90.8	91.0	0.22	89.6	
Toluene		< 0.5	100.0	101.0	1.00	98.9	
Ethylbenzene		< 0.5	99.8	104.0	4.12	99.7	
m+p Xylene		< 0.5	102.0	112.0	9,35	110.3	
o-Xylene		< 0.5	97,3	108.0	10.42	103,2	

Mercury Environmental Services, Inc. -

7050125 - 7060126 Page 2

QA/QC REPORT CONTINUED

7060125 SURROGATE SPIKE RECOVERY FOR BTEX	% REC
4 Bromofluorobenzene	103.2
7060126 SURROGATE SPIKE RECOVERY FOR BTEX	% REC
4-Bromofluorobenzene	97.7

Standards Utilized:

BTEX: 5-point calibration utilizing working standards derived from neat solution of benzene, toluene, ethylbenzene, m-xylene, p-xylene and o-xylene.

Key to QA Abbreviations

MS=Matrix Spike MSD=Matrix Spike Duplicate RPD=Relative Percent Deviation MB=Method Blank

LCS=Laboratory Control Standard **CCV=Continuing Calibration Verification** CCB=Continuing Calibration Blank Rec=Percent Recovery

Signature: Holland D. Gilmore / Laboratory Director

June 14, 2007

Mercury Environmental Services, Inc.

06/14/2007 15:46

11

MES

	COMPANY NAME: (BILL TO:) CES ENVIRONMENTALS							MES - CHAIN OF CU						CUST	USTODY 1-800-771-4MES (281) 476-4534	
	COMPANY ADDRESS: EL904 ORIONS RO CITY HUNTED USTATE IX ZIP 17021							Mercury Environmental Services Fax (281)-476-4406 6913 Hwy. 225 • Deer Park, TX 77536								
	CONTACT PERSON'S NAME: DUYN CUFE'							PARAMETERS FOR ANALYSIS REMARKS								HEMARKS
	CONTACT PERSON'S PHONE: 713-	148-9804	_ FAX#: _			76	7	chars							S HIMERS	TURNARQUAD TIME
2	YOUR PROJECT NO.: YOUR P.O. N: YOUR PROJECT NAME: PROJECT ADDRESS: YOUR PROJECT NAME: YOUR PROJECT NAME: YOUR PROJECT NAME: YOUR PROJECT NAME:						SPECIAL LIMITS R							DETECTION LIMITS SPECIAL LIMITS REQUIRED Yes No		
ł	YOUR SAMPLE DESCRIPTION	GRAB/COMP.	OATE	TIME	TAM	RIX						NON (SE			Please circle one, Il Yes, please describe below or include separate	
	Alasurbent	Orab	6/6	H00p1	n		X	X								sheet detailing requirements.
	Sump Sludge	Comp	ble	400p	7		X	X	X							
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7	METHOD OF PAYMENT	SHIPPED BY: (Signature)		CG rs	OURIER (gnaktre)					(Sig	CSIVED F	OR ME	BB	lic	k	DAYE TIME 35
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F	☐ Return Sample Remainder To Client Via						(Detel									